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THE UNIVERSITIES. OF INDIA

BY

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THE UNIVERSITIES OF INDIA

I. Introduction

NO attempt at an educational survey of the British Empire can afford to ignore the extensive effort at the advancement of learning implied in the work of the universities of India. Though only eighteen in number, sixteen in British India and two in the States of Hyderabad and Mysore, they constitute a very large educational organisation in the country, especially as many of them are affiliating universities embracing numerous colleges. With an enrolment of more than a hundred thousand students to-day they are responsible for the upbringing of the most promising among the younger generation of the country, a matter of serious consideration for all interested in her future. In view of the important constitutional changes in the direction of political progress impending in India, the work of the universities should be of the utmost concern to everybody in the Empire, as they are to be the nurseries of its future administrators and statesmen.

The universities of India are not less important for consideration even in the light of their work in the past. It is true that criticisms have been made about them, as about most human institutions, but it is no exaggeration to state that their alumni have been responsible for all the impulses to progress in the country during the last few decades. As centres for the dissemination of knowledge in modern learning and science, they have given a very good account of themselves, and it is only a matter of time and increased resources for them to make themselves even more useful in the future.

The existing universities of India date only from the more recent years of the British connection, but, as is well known to students of history, the country has high educational traditions of great antiquity; and the universities which flourished in ancient and mediæval India, like Taxila in the North-West Frontier and Nalanda in modern Bihar and Orissa, drew seekers after knowledge from all over the world, at least in the East. The traditions were unfortunately interrupted by several centuries of dark history, though new ones have now started since about the middle of the last century.

II. The Rise of the Modern Universities

(a) *The First Period, 1857-87*

The oldest group of the present universities of India (Calcutta, Bombay and Madras) were founded in 1867, the year of the Great

Indian Mutiny, though suggestions for inaugurating universities had been made even earlier. Their establishment may be considered to be the logical fulfilment of the famous declaration regarding Indian policy contained in the Educational Despatch of Sir Charles Wood in 1854: "Among many subjects of importance, none have a stronger claim to our attention than that of education. It is one of our most sacred duties to the nation, to be the means, as far as in us lies, of conferring upon the natives of India those vast moral and material blessings which flow from the general diffusion of useful knowledge and which India may under Providence derive from her connection with England." The University of Calcutta was incorporated on June 24th, 1857, Western education having already made considerable progress in the Presidency of Bengal; and the Universities of Bombay and Madras followed in the same year, coming into existence on July 18th and September 15th.

The University of Calcutta

The University of Calcutta had, at one time, a very extensive jurisdiction, including all north India from the North-Western Frontier to Burma in the east. The inauguration of separate universities at various other centres has now reduced its area of affiliation to Bengal and Assam, excluding Dacca, which has a separate unitary and residential university of its own; but it is formidable even now, and imposes a heavy strain on its academic life and general activities. Containing more than sixty colleges scattered over this wide area, it is the largest university in the country, having the highest enrolment. The handicaps of an affiliating university have, however, been surmounted to a considerable measure by extensive teaching and research departments at the headquarters, concentrating attention on post-graduate work, under the direct auspices of the University itself.

Thanks to the efforts of the late Sir Ashutosh Mukerji, one of the greatest Vice-Chancellors India has had, its post-graduate establishments are now on a firm basis and the University has achieved considerable reputation in recent years as a centre of learning and research. There is, it is true, a certain amount of criticism about the standards of its examinations, but there is ample evidence that the authorities are conscious of it and efforts will soon be made to attack the question. Special reference must also be made to the fact that the University has attracted a large number of private benefactions, particularly for the advancement of science. The names of Sir Taraknath Palit and Sir Rash Bihari Ghosh deserve to be remembered with gratitude by all those interested in Indian education. It is also gratifying to note that some of the chairs established by the University have already gathered round them illustrious traditions, associated as they have been with the names of such eminent scholars and scientists as Sir Brojendranath Seal, Sir C. V. Raman, Sir P. C. Roy and Sir Rādhakrishnan.

The University of Bombay

The University of Bombay is also mainly of the affiliating type, though in recent years it has developed a few teaching departments of its own at the headquarters, by establishing a School of Economics and Sociology and, more recently, a Department of Chemical Technology. Besides the changes introduced by the Indian Universities Act of 1904, affecting all the universities existing at the time, the University of Bombay has undergone considerable alteration in its constitution by the University Act of 1928. The proportion of the nominated members of the Senate has been reduced. The right of election to the Senate has been given to a large variety of interests, and it has been claimed that the University has been made "more popular and representative than it was ever in the past." It may be mentioned, in passing, that this is the present trend of all university legislation in India.

The University of Madras

The University of Madras has rightly enjoyed considerable reputation for the efficiency of its standards, secured not only by strictness of examinations and high-class teaching in college classes, but also by careful attention by the Educational Department to all the lower stages of instruction in the Presidency. In addition to the modification of its constitution by the Indian Universities Act of 1904, it has undergone a radical change by the Madras University Act of 1923, which has served the double purpose of liberalising its constitution and enabling the University to assume a large amount of teaching activity on its own behalf, while continuing to exercise control over its affiliated colleges. It has several teaching departments of its own, supplementing the teaching in colleges and offering facilities for research. In Arts subjects, Economics, Indian History and Archaeology and Philosophy; in Science, Mathematics, Zoology, Biochemistry and Botany are among the branches covered, and the University has taken great care, at the same time, that it does not compete with the colleges. The members of the staff employed in these departments, it is gratifying to note, have no routine duties of teaching and therefore enjoy ample facilities for research, the results of which have found publication in a series of volumes issued by the University.

A special feature of the University is its Oriental Research Institute, with branches representing Sanskrit and the four Dravidian languages, Tamil, Telugu, Canarese and Malayalam, and also Arabic, Persian and Urdu. The activities of the University have also been extended in recent years by the institution of special Diploma courses under the direct auspices of the University in Modern European Languages, Geography and Indian Music, the University of Madras being the first in India to make adequate arrangements to teach the last subject.

Not being a unitary and residential University, even the colleges in Madras are not concentrated on a central university campus, but the Senate House and other university edifices on its famous Marina represent a group of university buildings with a magnificent situation of which any university might be proud. The buildings are to be enriched by the addition of a University Library at a cost of about a million rupees, which will be one of the finest structures in India, at least among academic buildings.

The University of the Punjab

Leaving the original three universities, we next come in chronological order to the Punjab and Allahabad Universities, started respectively in 1882 and 1887. As was only to be expected, the unwieldy jurisdiction of the Calcutta University at the time made it necessary for colleges to demand university centres nearer themselves, the Punjab being the first to break away, after a quarter of a century of association with its parent. It is only fair to add that it was not merely geographical considerations that prompted the founders of the Punjab University to establish an institution of their own, for they also contemplated radical departures from the syllabuses and courses of studies in force at Calcutta.

The University of the Punjab has expanded considerably in recent years, not only in the strength of its enrolment, but also in its teaching activities. It has a very well-equipped Department of Chemistry, with some of the best laboratories in India, besides Departments of Mathematics and History of its own, and Departments of Zoology, Botany and Applied Chemistry in association with some of the leading colleges at its headquarters at Lahore. It has also colleges in Law and Commerce maintained by the University itself. The Oriental Department of the University is one of its earliest activities, with its two main sections, one devoted to Sanskrit and the other to Arabic and Persian. It has been difficult for the University to resist the demand for the teaching of modern Indian languages, and the claims of Urdu, Hindi and Punjabi have already been recognised by their inclusion in the Oriental Department.

In response to a widespread demand, voiced in the local Legislative Council, the Government appointed a Committee of Enquiry into its affairs in October 1932, under the presidency of Sir George Anderson, the present writer being one of its members. This Committee finished its labours in March 1933 and has made far-reaching recommendations, which will have the effect of making the University fall into line with the more recent universities of India in its constitution and general organisation, and also introduce a number of new features into the educational system of the province. The recommendations are, however, still under the consideration of the Government and the university authorities. Some of them are also receiving attention in other provinces of India.

Allahabad University

It was in 1887 that another large slice was cut off from the jurisdiction of the Calcutta University, by the establishment of a university at Allahabad to serve the entire area of the present United Provinces of Agra and Oudh, as well as Rajputana, Gwalior and Central India. In its present form as a unitary and residential university, it is, however, of much later date. Though the University was reorganised in 1922, in accordance with the new policy of providing a large body called the Court, representative of public opinion of various shades, including members of the Legislative Council in ultimate control of the University, with an Academic Council for the discussion and settlement of purely educational questions, it was not till 1927 that the University was relieved of the burden of its external side by the formation of the Agra University to take over all affiliated colleges. The University in its new form has achieved considerable distinction for its high standards, and its alumni have figured prominently in recent years—only next to those of the University of Madras—among successful candidates for the various competitive examinations for the Imperial and other services held by the Public Service Commission in India.

This good result should be attributed to two causes: (1) the concentration on real university work rendered possible by the formation of a Board of High School and Intermediate Education in the province, which has taken over control of all education below the degree standard, and (2) the excellent traditions of the old Muir Central College, Allahabad, which was the nucleus of the University and which had a reputation for high academic efficiency, even in days before the formation of the unitary and residential university.

A unitary university does not necessarily preclude the possibility of separate colleges representing various Faculties or even subjects, but the Allahabad University has no units of this type, and has attempted to develop its various departments under a full-time Vice-Chancellor, side by side with a system of Residential Halls, which have begun to acquire good traditions within even this short period of their existence.

(b) The Interval, 1887-1916

The establishment of new universities seemed to have come to a standstill in 1887, at least for the period extending to 1916; but two important events happened in the educational world during the interval.

The Indian Universities Commission, 1902

Lord Curzon, during his brilliant Viceroyalty of India, appointed an Indian Universities Commission in 1902 to review the conditions of Indian universities and make recommendations for their improvement, with a view to making them real centres of university educa-

tion and not mere examining bodies, as they had originally been started on the then existing model of the University of London.

It is true there was an Educational Commission earlier in India, appointed in 1882, under the presidency of Sir William Hunter, but the Indian Universities Commission was the first authoritative body which entered into a special consideration of the problems relating to the higher education of India. The recommendations of the Commission were largely in the direction that "educational standards should be allowed a predominant influence" in the universities, and an enactment amending the universities in India came into effect on September 1st, 1904, laying new responsibilities upon universities, as regards control of affiliated colleges and also the exercise of teaching functions on their own account. The new Act specified the provision of instruction by the universities themselves as one of their duties and also gave them the power of appointing their own professors and lecturers, besides authorising them to hold and manage endowments and equip and maintain university libraries, laboratories and museums. The new recommendations were rapidly taken advantage of by the five universities existing at that time, Calcutta, Bombay, Madras, Punjab and Allahabad, thanks largely to the financial assistance rendered by the Government of India for achieving their objects. Some of the universities were successful in starting professorships of their own, supplementing instruction in colleges and substituting, at least partially, university for college teaching in post-graduate courses.

The Calcutta University Commission of 1916

This was followed by the Calcutta University Commission appointed by Lord Chelmsford in 1916 for the reorganisation of the University of Calcutta, which had the advantage of being presided over by Sir Michael Sadler and having on its personnel such an eminent educationist as Sir Philip Hartog. Though the Commission was intended only for the consideration of the special problems of the Calcutta University, its members travelled all over India and took a much wider view of their purpose. The report, which was in five bulky volumes, excluding the minutes of evidence, was hailed as a document of considerable value and for the next decade its recommendations may be said to have guided all university reforms. It laid down definitely the principles on which a modern university should be organised, reconciling the claims of democratic control with expert opinion; it pleaded for the exclusion of the Matriculation and Intermediate examinations from the charge of universities, not only for the efficiency of the latter, but also for their own improvement; it also recommended the formation of unitary and residential universities as being of a type much superior to affiliating universities, which could hardly exercise any effective control over their colleges and which were not of any intimate reality even to their most advanced students. The University of Calcutta itself has not been in any great hurry to adopt the various

suggestions of the Commission, but they have borne fruit all over India, as we shall see.

(c) *The Second Period, 1916-29*

The obligation of starting centres of university learning in the country was till then considered entirely one for the Government, but two universities came into existence during the next few years, by the efforts of the two great communities which constitute the bulk of the large population of India. The Benares Hindu University came into existence in 1916, and the Aligarh Muslim University followed four years later, though the latter had actually been projected even earlier than the Hindu movement. They are intended in the main to conserve the peculiar cultural heritage of the two communities, though providing instruction in all subjects of modern learning and science and also open to all students without any distinction of creed, colour or race. Both of them are intended to be, not provincial, but all-Indian universities and have not only been constituted by Acts of the Imperial Legislature but are still subject to the Central Government, in spite of education having been transferred to the Provincial Governments under the Government of India Act of 1919. Each of them is in receipt of an annual grant of three hundred thousand rupees from the Government of India, which has also recently paid them, for special purposes, a sum of a million and a half rupees.

The Benares Hindu University

Situated on an extensive campus of about two square miles in area, on the banks of the Ganges at the ancient and sacred city of the Hindus, the Benares Hindu University has made a strong appeal to the sentiments of the Hindu community, and its organisers, headed by the well-known Indian leader Pandit Madan Mohan Malaviya, have received great financial support from the princes and peoples professing the Hindu faith. Its special Hindu feature is perhaps limited to the existence of extensive Departments of Sanskrit Learning and Hindu Theology, but its sponsors have always at least aimed at the creation and maintenance of an effective Hindu atmosphere. It is not absolutely residential, as some of its students have still to remain outside the university, though provision has been made for the accommodation of about two thousand students on the university campus itself, but it has residential arrangements at a single centre on a vaster scale than any other university in India. Its beautiful lay-out and enormous building form a sight by themselves and are an attraction to the visitor almost as much as the sacred city from association with which it derives its importance.

The Benares Hindu University has many special departments of teaching and research besides the usual subjects, including a Mechanical and Electrical Engineering College, a Department of Mining and Metallurgy, another of Applied Chemistry, also an

Agricultural Research Institute and a College of Ayurveda or the Hindu system of medicine, with a hospital attached to it. One of its achievements is an extensive hostel for women with teaching facilities in certain subjects, which has attracted a large number of students from certain conservative Hindu families who might not have taken kindly to higher education for women, except under such professedly Hindu auspices. While keenly appreciative of the achievements of the University, it is, however, the opinion of some of its best friends that the time has come for the consolidation of the ground gained already and the stoppage of further expansion, at least for some years, in view of the limitations imposed by finance, and also for the achievement of a higher standard of efficiency which may be able to challenge comparison with the best universities in India or even in the outside world.

The Aligarh Muslim University

The Aligarh Muslim University owes its existence to the leaders of the Muslim community in India, the inspiration for educational progress going back to the days of another eminent Indian, the late Sir Syed Ahmad, who founded the Mohammedan Anglo-Oriental College at Aligarh in 1875. The College soon grew in importance and established traditions of its own which won for it considerable reputation all over India, attracting students even from the frontier and the distant south. It is therefore not surprising that, when the Muslim community wanted to establish a university in India, the College was raised to university status, and it has functioned in that capacity since December 1920. The Civil Disobedience movement in 1920-1 and internal dissensions in more recent years have unfortunately hindered the progress of the university very much, but considerable improvements have been carried out in recent years, thanks to the liberal assistance rendered by the two Mohammedan States of Hyderabad and Bhopal. It has just completed the construction and equipment of high school laboratories for various branches of science, which should enable it to produce really high-class university work. Like its prototype at Benares, it has also an Oriental Department for the fostering of Islamic studies, though the outlook of the university is not at all confined to subjects of Islamic culture.

The University of Mysore

The year of the starting of the Benares Hindu University also saw the formation of a university in Mysore, the first to be formed in an Indian State. Mysore has maintained such an excellent record of administrative and educational progress for several years, under the leadership of its present ruler, that it is only natural it should have been the first among the Indian States to start a university of its own. It is not exactly a unitary university, though it may, in some measure, be described as such, as its academic activities are divided between the two centres of Bangalore and Mysore. There is, how-

ever, some method in the division, the scientific subjects, including Engineering, being concentrated at Bangalore and the art subjects forming the special care of Mysore, though the Medical College is also situated at the latter centre. For years the destinies of the University were guided by the well-known Indian savant, Sir Brojendranath Seal, and the authorities of the State have always shown their determination to make it a high-class centre of university education. One of its recent developments is the laudable desire to advance the critical study and literary progress of Canarese or Kannada, the most important of the several languages spoken by the people of the State.

Osmania University

It may be convenient to deal here with the Osmania University (called after its founder, the present ruler, Sir Osman Ali Bahadur), situated at the capital of the dominions of His Exalted Highness the Nizam of Hyderabad, though it is not the next in chronological order to come into existence, being founded in 1918, a year after Patna. Much of the inspiration for the new University came from one of the distinguished ministers of the State, Sir Akbar Hydari, who has taken the keenest interest in its progress since its inception. A special feature of the Osmania University is the aim of imparting all instruction in non-language subjects through the medium of a modern Indian language, Urdu, which is the language of the government in the State. Recognising the limitations of the literature available in the language, the Government established a bureau of translation simultaneously with the inauguration of the University, to prepare the necessary textbooks for the students, by translating them from English and other European languages. The publications issued by the Bureau constitute an excellent addition to Urdu literature, in spite of the handicap that translations are apt to be weak and anæmic representations of the originals and, in the case of scientific books, they also become rapidly out of date owing to the rapid publication of new and revised editions of the books from which they are translated. The organisers of the University have now embarked on the courageous experiment of teaching even Western medicine and engineering through the medium of Urdu, though they are subjects fairly far removed from the normal currents of Indian vocabulary. The government of His Exalted Highness the Nizam of Hyderabad has not grudged any expenditure calculated to ensure the efficiency of the University and has brought together a highly qualified staff on adequate salaries, which compare favourably with those obtaining in the best universities of India. The latest about the University is the sanctioning by the government of the State of a sum of about a crore of rupees to be spread over a few years for the construction of suitable buildings for the University. Construction work has advanced rapidly, and it will not be long before the buildings are made available for occupation.

The University of Patna

The constitution of Bihar and Orissa into a separate province was largely responsible for the starting, soon after, of a university at Patna in 1917, with all the other amenities of a provincial capital, including a High Court of Judicature. In view of its extensive jurisdiction and the existence of a large number of colleges at such outlying stations as Musaffarpur in the north and Cuttack in the south, the new University could not be unitary and residential, though the Government has spent large sums of money in the equipment of its colleges at the University headquarters, the Patna College and the Science College being the two centres respectively for the teaching of Arts and Science subjects. The Government Medical and Engineering Colleges are also situated in their immediate neighbourhood, besides the Bihar National College, an institution under private management which has done much for the spread of education in the province. With all these admirable facilities it has not unfortunately been found possible to develop a unitary and residential university at Patna, or even to invest it with some of the functions of a teaching university, though the latter was actually contemplated by the original Act of Incorporation and proposals to give effect to the former have come before the University more than once.

The University of Rangoon

It was not to be expected that the distant province of Burma, which is even to be separated from India in the near future, could be satisfied for all time with looking to the University of Calcutta for its inspiration in matters relating to higher education. It got a new university of its own in 1920. It falls short of the unitary ideal because it has two constituent colleges, University College and Judson College, though both of them are situated on the fine university estate outside Rangoon. The Medical College is for obvious reasons situated near the General Hospital in the city. It also controls Intermediate education, though it was not the original intention to impose the responsibility on its shoulders, and there is only one Intermediate College in Mandalay as part of this scheme. It has also departments of Engineering, Teaching and Forestry, there being special facilities in Burma for the last subject. Situated in an almost entirely Buddhist province, it is appropriate that the University should have taken under its wing studies relating to Pali. A special feature of the University is its Endowment Fund of about five million rupees, inaugurated by Sir Harcourt Butler in 1927, to secure for it some measure of financial stability and independence.

The University of Lucknow

Evidence of the willingness of the United Provinces to benefit by the recommendations of the Calcutta University Commission was first furnished by the establishment of the unitary and residential

University of Lucknow in 1920, to be quickly followed, two years later, by the reorganisation on the new lines of the University of Allahabad. The Taluqdars of Oudh, who are the landed aristocracy of the province, came forward generously in response to the appeal made by Sir Harcourt Butler for the establishment of a university at their capital, the beautiful garden city of Lucknow. The endowment of two million five hundred thousand rupees required for giving permanence to the scheme was rapidly forthcoming by subscription; and the Canning College at Lucknow, whose traditions were not inferior to those of any other college in northern India, and whose alumni had distinguished themselves in the past in all the activities of the province, was raised to the status of a university college, equipped with larger departments and a better staff demanded by the higher responsibilities of a university centre. The special educational grant paid by the Taluqdars for the maintenance of the Canning College was made payable to the new university with the help of a legislative enactment.

A special feature of its organisation is the incorporation into its scheme of a large Medical College, the King Edward Medical College, Lucknow, while in other universities in British India the Medical Colleges continue to be under the administrative control of the Government and have not been handed over to university authorities. The University has no women's department of its own, but recognises the Isabella Thoburn College near its campus, an institution with very fine traditions maintained by the American Methodist Mission, as the women's section of the University. Considerable sums of money have been spent by the University in the construction of its laboratories in recent years, and at least its Departments of Botany and Zoology have won recognition in the scientific world of India and even abroad.

The University of Dacca

The next year (1921) saw the establishment of another university, this time at Dacca in east Bengal. The agitation following the partition of Bengal resulted in its virtual repeal in 1911, at the time of the transfer of the Imperial capital from Calcutta to Delhi, accompanied by certain changes of political administration. The people of eastern Bengal, who had witnessed the growth of a provincial capital in their midst, which was to revive the best days of Islamic ascendancy in Bengal, chafed under the grievance that they were no longer to have a separate administrative area for themselves, but they got at least an institution usually associated with a provincial capital, a university at Dacca.

The University of Dacca came into existence in July 1921, though proposals for it had been made since 1912. It started with the great advantage of having handed over to its charge all the extensive buildings intended for the headquarters of the new provincial government, constructed already at Ramna outside the ancient city of Dacca, with all its historical associations. Its first

Vice-Chancellor was Sir Philip Hartog, who acquired special experience of Indian educational conditions as a member of the Calcutta University Commission, besides his intimate acquaintance, for several years, with university life and organisation in England as the academic Registrar of the University of London, and who was to preside some years later over the Auxiliary Committee to the Simon Commission for the review of the growth of education in British India. Relieved of Intermediate work and possessing extensive residential accommodation, besides the advantages referred to already, it has admirable opportunities for further development. There are three residential units or Halls of Residence under Provosts, and special efforts have been made to foster the development of corporate life among students.

The University of Delhi

It was only to be expected that the Imperial capital of Delhi should demand a university of its own, for, besides being the headquarters of the Government of India, it is also a city with a large population increasing by leaps and bounds with each census—its present population being nearly half a million—and a convenient centre for students. The University was established in 1922 by an Act of the Imperial Legislature, the city being under the direct administrative control of the Government of India. Besides affiliating to itself the colleges in Delhi, including the well-known St. Stephen's College, which is the oldest among them, the University within its limited resources has organised some teaching activities of its own in law, economics and some branches of science. The University has recently had a stroke of good fortune, though large financial grants will still be necessary before it can become a high-class modern university. The old Viceregal estate with all its buildings has been handed over to the University and proposals are under consideration for concentrating university life and teaching on the new grounds, encouraging the affiliated colleges also to settle on the same site. Reference is made, elsewhere, to the proposals which have been put forward by the Government of India this year to bring the Delhi colleges together into a Federal University. It is only necessary to add that a university situated at the Imperial capital should be encouraged to become a centre of all Imperial studies, for some of which at least special facilities exist at the headquarters of the Government of India.

The University of Nagpur

The Central Provinces, with colleges at three centres, Nagpur, Jubbulpore and Amraoti, were content for a long time with affiliation to the University of Allahabad, but were given a university of their own in 1923, though proposals to that effect had started as early as 1914. The University is still largely an affiliating one, though the Act of Incorporation provides amply for the possibility of teaching functions, and there are teaching resources at the headquarters

which can be impressed into such service. Besides five Arts Colleges there is a College of Science at Nagpur up to the D.Sc. standard in physics, chemistry and mathematics, and up to the M.Sc. standard in zoology and botany. There are besides a College of Agriculture at Nagpur and a Training College for Teachers at Jabulpore. Reference is made elsewhere to a magnificent bequest the University has received recently for the advancement of technological education by the will of the late Rao Bahadur Lakshmi Narayan, amounting to more than three and a half millions of rupees.

Andhra University

The northern districts of the Madras Presidency which form a separate cultural unit by themselves, perhaps even, aspiring to be a separate province, made demands about this time for a university of their own, the inspiration being at least in part due to a desire to develop the Telugu language. The Andhra (the classical name for the people of the area) University came into existence in 1926, but a considerable time was wasted in the earlier years in controversies over the situation of its headquarters and even the actual area of its jurisdiction. It has, however, now been finally settled that it should be situated at Waltair near Vizagapatam, well known as a sanatorium on the Coromandal coast, though its jurisdiction has also been slightly reduced by the separation of the Ceded Districts and Chittoor, which have preferred to go back to their old alma mater of the University of Madras. Though the University has a fairly large number of colleges scattered over the Telugu districts, it has been developing teaching functions at the headquarters even within the short time of its existence. The University Honours College of Arts was opened on July 1st, 1931, and the University Honours College of Science and Technology on July 4th, 1934, the latter having been made possible by the generous annual grant, in perpetuity, of a hundred thousand rupees by the Maharaja of Jeypore, a member of the landed aristocracy in the Andhra country in the immediate neighbourhood of the University headquarters. The present Vice-Chancellor is Sir Radhakrishnan, a name not unknown to the West.

Agra University

Since the publication of the report of the Calcutta University Commission there has not been much enthusiasm in the country for the starting of new affiliating universities, but Agra had to be constituted into one in 1927, to take over the large number of colleges dropped by Allahabad, when it was finally made to assume its present form of a complete unitary and residential university. It is hampered considerably by its very extensive jurisdiction, perhaps the largest at present in India, embracing the United Provinces, Rajputana, Ajmer-Merwara, Gwalior and Central India. It is therefore not surprising that it has not made any attempt at starting teaching functions on its own account, though the Act of Incorpora-

tion gives it freedom to do so. It has been making honest efforts, however, at the maintenance of proper academic standards in its affiliated colleges, by a careful and frequent system of periodical inspection. Its first Vice-Chancellor, Canon A. W. Davies, associated for several years with the St. John's College at Agra, has rendered it possible for the University to have a habitation of its own, by his generous donation of Rs. 50,000 to form a nucleus for the purpose. The buildings are nearing completion and were opened in 1934 by Sir Malcolm Hailey, the late Governor of the United Provinces.

The University of Annamalai

The youngest of the universities of India is the unitary and residential University at Annamalainagar in the south of the Madras Presidency near Chidambaran, founded in 1929. It has the distinction of owing its existence to the generosity of a single donor, the Hon. Raja Sir Annamalai Chettiar of Chettinad, after whom the University is named. The entire buildings and equipment of the collegiate institutions originally founded by the Raja at the place were handed over for the purpose, with an additional endowment of two million rupees. The Government has supplemented the endowment with the further capital fund of two million seven hundred thousand rupees. The University aims at imparting instruction to about a thousand students in residence and has special facilities for the advanced study of such subjects as Tamil, Sanskrit and Indian Music.

III. General Characteristics of the Universities

It is difficult to attempt a common description of the constitutions, organisation of studies and general life of the universities of India, as they are so diverse in type and represent many differences due to historical accidents and also to deliberate variations in form. But it is safe to say that all of them are constituted by Acts of the Legislatures concerned, except the Osmania University of Hyderabad, which was established by *farman* of His Exalted Highness the Nizam of Hyderabad.

(a) Administration

The head of the province in which the university is situated is usually the Chancellor of the University, though in the case of Delhi it is the Viceroy and Governor-General of India. In the case of Mysore, it is the Ruler of the State, and in Hyderabad it is the present Prime Minister, Maharaja Sir Krishen Prasad, His Exalted Highness the Nizam being the Patron. The Benares and Aligarh Universities usually elect their Chancellors from among the ruling princes, who are their patrons, the present Chancellors being respectively His Highness the Maharaja of Bikaner and His Highness the Nawab of Bhopal. The Chancellors of the universities are not mere

ceremonial heads, at least in British India, as they possess powers of approval and veto in many matters and even powers of interference in certain cases. The Viceroy and Governor-General is Lord Rector at Benares and Aligarh and also Visitor to most of the newer or reorganised universities of India.

Each university is usually under the ultimate control of a large body consisting of academic and non-academic representatives called the Court, though the older appellation of Senate is still favoured by many universities. The deliberation of the purely educational questions of the university is entrusted to an Academic Council. The executive body in immediate charge of university affairs is called the Executive Council in the newer universities, while the older universities favour the expression, Syndicate. At the Benares Hindu University there are two sets of bodies : the Court in general control with its administrative body, the Executive Council ; and the Senate, the academic body, with its Syndicate in immediate charge of affairs. There are besides Boards of Studies, or Committees of Courses and Studies, or Departments of Studies, as they are called, for the consideration of details regarding particular subjects, and a Faculty for each group of subjects like Arts, Science, Medicine, Teaching, etc., to co-ordinate and harmonise the recommendations.

Following the British tradition, the universities of India are more or less autonomous. The Chancellor's approval is generally necessary before changes in regulations come into force, and he has powers of veto, though they have very rarely been exercised, except in a few cases when academic efficiency was being obviously endangered. In the newer universities the Vice-Chancellor is elected from a panel, subject to certain restrictions of previous nomination or later selection and approval ; but in some of the older universities, Calcutta, Bombay and the Punjab, as also at Patna, he continues to be nominated by the local governments for short periods. There are sometimes powers of visitation possessed by the higher authorities, as in the case of Benares and Aligarh, though there has not been any occasion for using them. The Governor of the United Provinces is the Visitor of the Benares Hindu University, and the Visiting Board of the Aligarh Muslim University consists of the Governor, the Members of the Executive Council, the Ministers and two others, one nominated by the local government and the other by the Minister of Education.

Finance

Government assistance is usually given in the form of block grants to be spent at the discretion of the university, though they are often calculated with the help of details of proposed expenditure. They are either for periods of five years, as in the case of Allahabad and Lucknow, or annual, as in universities in some other administrative areas. Audited accounts have, however, to be furnished annually to the authorities concerned. The expenditure on institutions

directly maintained by the Government, or distributed as aid to private institutions, is defrayed by the authorities of the Educational Department, though in some cases universities also render financial assistance to their affiliated colleges from funds at their disposal, for particular purposes.

Reference is made elsewhere to the dependence of universities in India on the governments for their financial stability, as they have generally no large foundations of their own. On a rough calculation, it may be said that nearly half the expenditure on university education in India, including all colleges maintained or aided by Government, is met from public revenues, collections of fees from students and income from all other sources covering only the remaining part. It is perhaps difficult to expect, at least for some time to come, increased assistance from the governments, as the needs of elementary education and the fight against illiteracy are making great demands on their resources, and the present expenditure on university education, in relation to the total provision for education in the budgets of the provinces, cannot be said to be unsatisfactory. The proportion is already 14.95 per cent. in Bengal, 15.79 per cent. in Bihar and Orissa, 11.92 per cent. in the United Provinces, 10.9 per cent. in Burma and 16.46 per cent. in the minor administration of Delhi.¹

(b) *Courses of Study*

Making allowances for minor differences, the courses of study and arrangements of classes follow a general type in India. A student enters the university at a much earlier age than in Great Britain, after the Matriculation or High School examination, and takes four years to get his B.A. or B.Sc. He has to pass an Intermediate examination two years before appearing for the Degree. In Allahabad, Lucknow, Dacca and Agra, however; the university classes begin only with the post-Intermediate stage, though Intermediate classes form a part of all the colleges of Agra University, subject, however, to the control of a different authority. The M.A. or M.Sc. degree is obtained two years later, though Madras follows the practice of Oxford and Cambridge and has three-year Honours courses, starting after the Intermediate, without any extra examination for the Master's Degree. In most of the north Indian universities, Honours are obtained in the ordinary degree courses by taking some extra papers in the subject and by satisfying certain special standards of proficiency. A compromise with the system of Honours schools has, however, been made recently in Allahabad and Lucknow by adding the first year of the Master's Degree to the lower stage and making it an Honours degree and having the second year as the preparation for the final M.A. or M.Sc." While there is a Previous and a Final examination for the Master's Degree at the end of each year in some of the universities, there is only one examination at the end of two years in others.

¹ Figures for 1931-2, *Quinquennial Report of the Government of India*.

Faculties of Arts and Science

There is not much difference in the subjects taught among the universities in India. In the Faculty of Arts, candidates take up English with three other subjects for the Intermediate and two for the B.A., chosen from such subjects as history, philosophy (logic in the Intermediate), economics, mathematics, politics (civics in the Intermediate) and classical or modern Indian languages.

English is now being treated as an optional subject in some universities and there is also a tendency to split it into two parts, making a test in general English compulsory and prescribing a more advanced literary course as one of the independent subjects. There has been also a welcome trend in recent years to lay special stress on Indian history and Indian philosophy and generally on Indian studies, and to deal with subjects like economics in more intimate relation to Indian conditions.

Science subjects usually include mathematics, physics, chemistry, zoology and botany (the last two combined into biology in the Intermediate classes) and at a few centres also geology. While English is invariably compulsory at the Intermediate standard, it is either optional or reduced to mere general English at the Degree examinations on the science side.

Students preparing for the Master's Degree usually study a single subject, though the courses may sometimes include a few papers in a subsidiary subject. Modern Indian languages have been raised in recent years to the position of independent subjects even up to the M.A. standard, comparative philology and knowledge of an allied language being also insisted upon in the highest courses.

Research Degrees

Provision is being increasingly made in Indian universities for research degrees in the shape of Doctorates called Ph.D., D.Sc., D.Litt. or LL.D. as the case may be. The student either continues to prepare for the Degree at the university itself (on his own resources or on a research scholarship) or submits a thesis from outside after a certain number of years, containing original work.

Professional Faculties : Law

The professional degrees in Indian universities usually include Law, Teaching, Medicine, Engineering and Agriculture, though it must not be assumed that all these subjects are taught at every one of the universities. In view of the large financial expenditure required for efficient teaching in such subjects as engineering, medicine and agriculture, they are taught at only a few centres.

The most popular of these courses is law, which is of two years' duration, leading to the degree of Bachelor of Laws. Except in Madras, they are not full-time studies, classes being generally held outside the usual college hours to enable those who have entered other professions or are engaged in other studies to attend the lec-

tures. In some universities, as in Lucknow, a student can take both the M.A. and LL.B. degrees within two years after taking the Bachelor's degree, while in Allahabad, Benares and Agra they can do so only in three years. There is also a specialised degree of Master of Laws to which a candidate can proceed after another two years. Complaints have been made in recent months by responsible authorities that there is need for considerable improvement in the teaching of law, and proposals have been inaugurated at more than one university in India to improve the standards of efficiency. A peculiar feature of legal education in India is that a university degree in the subject carries with it the right to practise in courts of law, after the fulfilment of certain formalities, but practically without any further training.

Teachers' Training

The degree in Teachers' Training is usually obtained by a single year's course, accompanied by a certain amount of supervised practical teaching, though there is a widespread feeling that it is impossible to do justice to the subject in less than two years. The degree is usually called B.T., B.Ed., though the title Licentiate in Teaching has also not yet dropped entirely out of use, in spite of its indication of a lower standard. Some universities have recently instituted a higher degree in teaching to be obtained by a thesis on some subject of educational interest. There is great need in the country for the study of pedagogic theories in special relation to the Indian child and Indian conditions, and there is evidence that universities will be able to make an effective contribution to it in the near future, through their departments of teaching or even through their affiliated colleges.

Medicine.

There are Faculties of Medicine in the Universities of Calcutta, Bombay, Madras, Punjab, Lucknow, Patna, Rangoon, Andhra, Osmania and Mysore. The courses for a Medical Degree usually extend over five years after passing the Intermediate examination in Science with Biology, or a preliminary examination conducted specially for admission into the Faculty of Medicine. There is also a Doctorate in Medicine obtainable by research work. Recognition of Medical Degrees in India for purposes of the registration of medical practitioners depended till recently on the British Medical Council, but an independent Medical Council has just been established for India, which will hereafter exercise control over the standards of medical education in Indian universities.

Engineering

Degrees in Engineering demand a four-year course after passing the Intermediate examination, with a fifth year for practical training prescribed by some authorities. Only the following universities confer Degrees in Engineering at present: Calcutta, Bombay,

Madras, Patna, Rangoon, Punjab, Benares, Mysore and Osmania. Reference is made elsewhere to the Thomason Engineering College at Roorkee in the United Provinces, which confers its own Diplomas in Engineering, recognised as equivalent to university degrees. While instruction at centres was, till recently, more or less confined to civil engineering, electrical and mechanical engineering are being added, or separate institutions are being established for the purpose, as at Benares and Lahore.

Agriculture

Degrees in Agriculture extend over three years after passing the Intermediate examination in Science, or two years after passing the Intermediate examination in Agriculture. There are several well-equipped Agricultural Colleges in the country, all of them affiliated to universities, equipped with facilities for research or having research departments associated with them. Poona in the Bombay Presidency, Coimbatore in South India, Lyallpur in the Punjab, Cawnpore in the United Provinces and Nagpur in the Central Provinces are at present the centres of agricultural education of university standard, though there are also agricultural schools imparting preliminary training scattered all over the country. The recommendations of the Royal Commission on Indian Agriculture appointed in 1926, followed by the establishment of the Imperial Council of Agricultural Research, have drawn special attention to the numerous problems connected with agricultural education and have acted as a great stimulus to its advancement.

(c) The Indian Student

It would be interesting to attempt a picture of the average university student in India, the routine of his everyday life at college, his intellectual and social background and the hopes and aspirations of members of his class. But the difficulties are insuperable, in view of the large area of the country and the consequent differences of the people themselves, not to speak of variations in the types of universities. The provinces are sometimes too far away and too different from one another to submit themselves to the limitations of a common description. Sir Michael Sadler and his colleagues on the Calcutta University Commission found serious difficulty in analysing the intellectual and emotional qualities of the students of the single province with which they were concerned, and it must be a hopeless task indeed to extend the survey to the whole of India.

The Student's Day

The average Indian student enters the university earlier than his compeer in Britain, after passing the Matriculation or High School examination, except in certain universities referred to already, where he is admitted only after passing the Intermediate stage. He is only about 16 as he enters the university, unless he has been

a particularly backward student and has stagnated in the lower stages of instruction. In fact, the promising students are even younger, being often only 15, the Indian intellect being more precocious and Indian parents being often unduly anxious to get their children to finish their education as early as possible. If he is a day-scholar he continues to live with his parents, going to college at about ten in the morning and returning at three or four in the afternoon, the time-table varying with the provinces and sometimes with the seasons of the year. If he is the inmate of a college or university hostel, he has generally a cubicle to himself of about ten feet square in a block of rooms in charge of a superintendent, who generally lives on the premises, though hostels are quite common where students have to share rooms with one or sometimes even two others. All the hours of the college time are not necessarily occupied with lectures and there are leisure periods meant to be spent either in the college Library or in the college Reading Room, the latter in any well-equipped college containing a large number of magazines and newspapers.

The afternoons are usually devoted to sports, there being provision for all the usual games of a university, football, hockey, cricket, tennis, volley-ball, etc., varying with the seasons in some parts of the country and representing facilities not always of a uniform standard. It may be said with regard to games generally that hockey is very popular in northern and north-western India, football in Bengal and cricket in the Bombay Presidency and western India, while tennis has gained increasing popularity in recent years and some of the best players in the country have been at the universities. Activities as Rover Scouts and as members of University Training Corps are also available.

The afternoons are also devoted to periodical meetings of various kinds, connected with the college unions or literary and debating and other societies, which often include societies for various languages, dramatic associations for fostering histrionic activities, for which the Indian student seems to have a special talent, and for the advancement of various subjects of study. The student gets back to his rooms in the evening and spends considerable time at his studies, reading till a late hour at night, especially as the examinations approach. Being also an early riser, it will be realised that there is no lack of intellectual effort on his part to benefit by university instruction.

The Student's Character

Quickness of understanding, remarkable powers of memory and acute powers of analysis are perhaps among the most promising qualities of the Indian intellect, though it is necessary to sound the caution here that this description will not apply to all parts of the country and the attributes may vary according to provinces. The Indian intellect is, however, perhaps somewhat lacking in strength and capacity for steady and sustained work, and is also

inclined to follow the beaten track in preference to new lines' of exploration. It is not merely immaturity of age that inclines the average student to ask that his work should be made as easy as possible for him by a spoon-feeding teacher, from whom he generally expects carefully prepared notes for the examination. His weakness is to prefer instruction from the teacher, to whom he will listen with devout attention, to effort on his own part. He has often neither the inclination nor the self-confidence necessary to find out things for himself ; nor were there in Indian institutions till recently sufficient facilities for independent study by the student. The stress of economic life and the need for earning a livelihood being particularly keenly felt, he is also apt to concentrate too much attention on examinations and judge the value of knowledge by its usefulness for obtaining a degree. Educational reforms in India for several years to come will have to be in the direction of combating these tendencies.

The average Indian student is a gentle and lovable creature, capable of considerable affection and gratitude, with an ingrained and traditional respect for his teachers. He is easily amenable to discipline, though his sensitiveness is apt to make him take offence where none was intended and his occasional want of humour and sense of proportion may be responsible for magnifying trivial incidents not really worthy of any serious notice. His sense of discipline is based more on his natural docility than on any reasoned appreciation of its value for any useful organisation in life. Being somewhat too emotional, like most Oriental people, he is apt to lose his balance on occasions and forget his duties to himself and to his college under the stress of some political excitement.

The Problem of a Career

Life at an average university centre in India is happy enough, even when judged according to Western university ideas, and the student can always look back to years of pleasant existence at college, however much they may have been encumbered with anxieties regarding examinations. The search for a career clouds the student's outlook as he finishes his education, unless he is exceptionally brilliant and gets into one of the Imperial services by passing in the all-India competitive examinations, conducted by the Public Service Commission. If he does not branch off into one of the prolonged professional courses like medicine or engineering, holding out better prospects of employment than other subjects, he is often at the Law College, as it is the ambition of many young men to make money at the Bar, and to play the part in public life which is usually associated with that profession, at least in India. A large number aspire to get appointments in the subordinate services of the government, and it is here that the struggle has been keenest in recent years. Reference is made elsewhere to the reactions of the educational system in India to the problems of acute unemployment.

(d) The Affiliated Colleges

Before leaving this section reference should also be made to the differences in the agencies of higher education in India, especially as they often imply differences in the life and atmosphere of the institutions concerned. There are the teaching and residential universities which have already been described at adequate length, established by Acts of the legislature and maintained, either in part or in full, by resources furnished by the government. But the bulk of the work is carried on in affiliated colleges, maintained either by the government or by Christian Missions, whose services to the spread of education in India have been immense, or by private Indian agencies, usually consisting of representatives of the public formed into committees for the management of these institutions.

Government Colleges

Of the total number of about three hundred colleges in India, including professional colleges, roughly a third are maintained by the government. They are usually among the best equipped and best staffed colleges in the country, owing mainly to the fact that the government is able to command larger financial resources than private agencies. Following rules and policies regularly laid down for the purpose under the authority of the government, they are also among the best managed institutions in the country, free from undue interference from outside and having the advantage of the advice of high-class educational experts maintained by the government. Not depending on the fee income of students, as is the case with many private institutions, they are also able to enforce high standards of discipline. It will be acknowledged on all hands, for instance, that the government colleges maintained at provincial headquarters, like the Presidency Colleges at Calcutta and Madras, the Government College at Lahore and the Elphinstone College at Bombay, are among the best in the country. Being open to students of all communities, government colleges observe strict neutrality in matters of religion and do not usually provide any direct theological teaching or discipline.

Christian Colleges

The beginning of Christian effort in India in the sphere of higher education can be traced to William Carey in Bengal, who, in association with Marshman and Ward, established the college in Serampore in 1818. Christian Missions have thus a long and honourable record of more than a hundred years in the cause of higher education in India. Contributions to Mission work in this sphere have been made not only by British Missions, but also by continental and American agencies. There are to-day about forty colleges maintained by the Missions in various parts of India, forming a sixth of the total number of the Arts colleges in the country. Some of the

institutions are among the leading colleges, and special mention may be made of the Christian College, Madras, the Forman Christian College, Lahore, St. Stephen's College, Delhi, and the Wilson College, Bombay. The influence of the Christian Missions has been felt particularly in women's education, and among the best women's colleges in the country are three institutions maintained by them : the Isabella Thoburn College at Lucknow, the Kinnaird College for Women at Lahore and the Women's Christian College at Madras, though at the last two centres the governments concerned also maintain two first-rate women's colleges, the Government College for Women at the former and the Queen Mary's College at the latter.

The subject of Christian higher education in India underwent thorough examination a few years back by the appointment of a special Commission for the purpose presided over by Dr. A. D. Lindsay, Master of Balliol. The report, written after an extensive tour of the country and the inspection of most of the Mission colleges in India, has made far-reaching recommendations, the acceptance and execution of which should result in the inauguration of a new era of Christian education in India. They are generally in the direction of consolidating educational effort and working for higher standards of efficiency at a few centres, rather than dissipating the available resources by having too many institutions. Even as this is written, a special effort is being made in Britain to obtain more funds for Christian higher education in India. It is hardly necessary to add that a special feature of Christian institutions in India is the direct imparting of religious instruction in Christian doctrine, accompanied by attendance at prayer and religious services. In recent years a conscience clause has, however, been introduced in certain provinces, in accordance with which religious instruction cannot be made compulsory in institutions aided by the government.

Other Colleges

A gratifying feature of the Indian educational system in recent years has been the establishment of a number of colleges by private indigenous agencies. Colleges have come into existence in the Indian States affiliated to universities in British India, which have often jurisdiction over the States for the purpose. Individual donors, representing members of the landed aristocracy or those who have made fortunes in business, have been responsible for starting other colleges. Enlightened leaders of the educated middle classes have also come forward to collect funds and establish colleges, particularly in western India, sometimes offering their services on nominal salaries in a missionary spirit. There are also communal institutions, like those among the Hindus founded by the Arya Samaj, or Islamic colleges founded by associations for the educational advancement of the Muslims, the Dayanand Anglo-Vedic College and the Islamia College, both of them situated at Lahore, being typical examples. The importance of all these private

colleges to the educational system will be realised by the fact that nearly half the total number of the colleges in the country belong neither to the Government nor to Christian Mission agencies, but to founders of this description. Their welfare and educational efficiency should therefore also be matters of the most serious concern to those interested in the higher education of India.

IV. Projects for New Universities

If no other university has come into existence in India since the establishment of the Annamalai University in 1929,—and there seems to be a lull at present in the establishment of new ones, partly due to general economic depression and partly, perhaps, to the absorption of the country in the impending political changes—it is also obvious that the movement has not stopped. The formation of new administrative and political areas ; the aspirations of communities forming different linguistic groups, anxious to have separate centres of culture for themselves ; and sometimes communal and religious traditions, handed down from generations, seeking expression in a common educational centre—all these have operated in the past as some of the reasons for the formation of new universities. These influences continue to be as potent to-day as they were at any time, and it is interesting to study their possible expression in the near future.

The North-West Frontier

Starting from the extreme north, there has been a demand now for some years for the establishment of a separate university for the North-West Frontier Province, which is now tacked on to the Punjab for the purpose of the affiliation of its colleges. Resolutions have been carried in the provincial Legislative Council asking for the establishment of a university for the frontier—and the administration has thought seriously of appointing a Committee to go into the question. The demand acquires keener interest because of the existence at Peshawar of an influential Islamia College, looked up to for enlightenment by a large population in the north-west, though there is also another college there, maintained by the Christian Mission. The idea is to raise the Islamia College to the status of a university, without, of course, confining it to one community or even leaving it entirely to the control of that community. Situated almost at the entrance of the Khyber Pass, the university, when established, is perhaps destined to play a prominent part in exercising a civilising influence on the frontier and even beyond. It may even be an investment for the State, supplementing in a useful manner the present policy of spending large sums of money for ensuring a peaceful frontier.

Amritsar

In the Punjab itself there is another university in prospect, a university at Amritsar, meant as a special centre of higher education

for the Sikh community. The world is perhaps familiar with the great martial traditions of the Sikhs, but not quite so much with the splendid educational work of the community in recent years. Their enterprise and interest in education have been responsible for spreading a network of schools and colleges over the whole province, the culmination of their educational effort at present being the Khalsa College at Amritsar, the city of the Golden Temple of the Sikhs. Even as the Hindu and Mohammedan communities of India have universities of their own, the Sikhs have been aspiring for some time to have a centre of higher education for themselves which, while being open to all communities and also catering for the various branches of modern learning, may specialise in the special culture of their own community and maintain an atmosphere congenial to their religious life and discipline.

Rajputana

Having as many as five universities within their boundaries, besides a Board of High School and Intermediate Education to control education in the lower stages, the United Provinces of Agra and Oudh may be said to be well provided in the matter of universities for several years to come; but there has been a demand for another university in the neighbouring region of Rajputana, whose colleges are at present affiliated to the University of Agra. Unwieldiness of university jurisdiction is no light handicap, causing as it does serious difficulties in the matter of effective supervision and control over affiliated colleges and in the maintenance of common academic standards over a wide area; and the time is perhaps not far distant when the colleges of Rajputana may have to be lopped off from the parent-tree, not only for its more healthy and vigorous growth, but also for the intellectual advancement of Rajputana, which is rich with inspiring traditions of its own and has played no mean part in the history of India.

Assam

Among the existing administrative areas aspiring to a separate university of its own is the little province of Assam. There has been a gradual reduction in the jurisdiction of the University of Calcutta, but even now it embraces the entire Presidency of Bengal, except the city of Dacca, and the province of Assam is still one of its appendages. In view of the poor economic resources of the province and the advantage in prestige to be gained by its colleges by continuing to be affiliated to the University of Calcutta as in the past, there is also a body of opinion against the starting of a separate university for Assam, but it will not be long before it will be found not only convenient but also possible to undertake such a scheme.

Orissa

Orissa, which now constitutes a single administrative area with Bihar, is to be made a separate province under the new constitution,

and it is therefore not surprising that a demand has been in evidence for the establishment of a university at its proposed headquarters at Cuttack to serve the people of Orissa. It is true that a recent Committee appointed by the Government, but including non-officials, did not think it expedient at present to recommend the establishment of a new university, but there is no doubt that the demand will become more and more vociferous, as soon as the new province is an accomplished fact.

Sind

A demand, almost exactly on the same lines, is being made by the people of Sind, who are now a part of the Presidency of Bombay, but who are to form a separate province under the new constitution. The demand is also based on the fact that the people of Sind speak a separate language and represent a community of great enterprise, particularly in commerce; and at its two educational centres of Karachi and Hyderabad there is enough material for a university.

Poona

While the city of Bombay is quite cosmopolitan, being the gateway of India and a great commercial centre, the southern and northern districts of the Presidency are occupied by two distinct communities speaking different languages, Marathi and Gujarati, with their respective centres of cultural life at Poona and Ahmedabad. There are movements for new universities for these areas, though the demand for a Gujarati university is much more recent than the one for a Maharashtra university at Poona. As the old capital of the Peshwas, Poona has occupied a prominent place in the cultural life of the people of western India; and in recent years it has given magnificent proof of its willingness to make sacrifices in the cause of education by establishing several colleges almost entirely by private effort. The Fergusson College, with its fine traditions of service and sacrifice, has been emulated by two other similar institutions, the Sir Parasharambhai College and the Nowrosjee Wadia College. There are, besides, several colleges scattered over the Maharashtra country, and there has been some restiveness among them under the tutelage of distant Bombay. It is also well to remember that the Sreemati Natibai Damodar Thackersay Indian Women's University is in Poona and, though not one of the recognised universities, its resources and peculiar academic life may also perhaps be enlisted in the service of the new university if it comes into existence. The people of Maharashtra have been demanding in no uncertain voice that, for the adequate expression of their peculiar culture and the development of the Marathi language and literature, a separate university with its headquarters at Poona is essential. It is true that a recent conference convened under the auspices of the local government considered it impracticable to start a separate university at present,

but one may perhaps say with confidence that it will come at no distant date.

Ahmedabad

Ahmedabad is the centre of the Gujarati-speaking population of the Bombay Presidency, and it has also the advantage of being the headquarters of a large number of commercial and industrial magnates, who have shown themselves friendly in the past to the cause of higher education. In point of recent literary achievements and vigour of artistic activities, Gujarati, again, can challenge comparison with the most progressive modern languages of India and the aspirations for a university are therefore perhaps not unreasonable, though the case is not so strong as for Poona.

Baroda

The State of Baroda, situated within the confines of the Bombay Presidency, has had a university in contemplation since 1918, when the present writer prepared a memorandum on the subject for the Government of His Highness the Gaekwar of Baroda. More recently, a Committee appointed by the State has gone into the whole question and prepared a more detailed scheme, which has unfortunately been held up. The State of Baroda has achieved a considerable reputation in the past for its progress in education, and the establishment of a university will be a fitting consummation of these efforts. After the Osmania University of Hyderabad and the University of Mysore, it will be the third university among the Indian States outside British India.

A Malayalam University

The Presidency of Madras is in the peculiar position of sheltering four modern Indian languages within its limits, Tamil, Telugu, Canarese and Malayalam, each of them having a rich literature of its own and anxious to find effective expression with the assistance of modern universities. If the city of Madras is somewhat cosmopolitan, like Bombay, and consists of inhabitants who speak more than one south Indian language, the Telugu-speaking districts have got the Andhra University, and the encouragement of Tamil studies and research is one of the professed aims of the Annamalai University. The needs of Canarese can perhaps be met effectively, at least for the present, by the University of Mysore. Only Malayalam remains, and it is no wonder that a Kerala University for the area representing the language has been projected for some time. The main obstacle to the scheme has apparently been that the people concerned are scattered under three political authorities, the district of Malabar and the States of Cochin and Travancore, which have conserved for centuries the traditions and culture of Kerala. A Committee appointed a few years ago actually drafted a scheme for the establishment of a university for Travancore, but action has not yet been taken upon it. Travancore and Cochin lead the rest of

India in the matter of educational advancement, having a higher percentage of literacy than any other area, and in their crowded colleges there is ample material available for the inauguration of a university. To some extent, such a university is also becoming necessary in view of the difficulty experienced by the students of these colleges in finding admission elsewhere, particularly in professional colleges.

Summary

The mere multiplication of universities is not necessarily a sign of educational progress, and there are people who think that the Indian educational system is already top-heavy and that it is time to cry "halt" and concentrate attention on the education of the masses. But in view of the enormous area of the country and its large population of three hundred and fifty millions, the present number of eighteen universities is perhaps not too many; and there is sufficient evidence that at least half a dozen more are in the making and will come into existence in the near future.

V.. Other Institutions of University Standard

Besides the eighteen universities, fairly well distributed over the country, there are a few institutions of university standard which are not universities in the technical sense but which are recognised as doing university work. The Diplomas issued by at least one of them, the Indian Institute of Science at Bangalore, are even recognised by the governments and educational authorities as equivalent to the corresponding Degrees awarded by universities.

The Indian Institute of Science at Bangalore

The Indian Institute of Science at Bangalore, established in 1911, has been rendered possible by the munificence of the late Sir Jamsedji Tata, the well-known Parsi millionaire, who was responsible for the foundation of many industrial concerns, and by the co-operation of the Government of India and the State of Mysore. It is situated on the outskirts of Bangalore in south India, a place well known for its salubrious climate, and it has all the resources for an institution intended for the advancement of science, being able to spend more than six hundred thousand rupees a year. It is difficult to say whether all the expectations entertained by its large-hearted and patriotic founder, in the direction of its usefulness for the advancement of the industries of the country, have yet been realised, but the recent appointment of Sir C. V. Raman, the Nobel Prize Winner in Physics, as its Director has received wide approval and added to its distinction. The Institute has four main branches of science, General Chemistry, Organic Chemistry, Bio-chemistry and Electrical Technology. In view of the appointment of an eminent physicist as its Director and also the fundamental importance of the subject to all scientific work, a Department of Physics has now been added to the activities of the Institute.

Government Institutions

It may not be generally known that the Government of India maintains a large number of scientific departments whose workers have achieved great reputation in the past for their contributions to human knowledge, and whose good work continues with equal success and distinction in spite of some crippling of their resources by the drastic retrenchments which have had to be made by the Government in recent years. While branches like the Zoological Survey, the Geological Survey, the Imperial Council of Agriculture in its various sections and the Meteorological Department, carry on scientific work of the highest value to the country, there are also scientific institutions of an advanced kind for educational training and research maintained by the Government of India, though situated in various provinces of the country.

Foremost among them is the Imperial Institute of Agricultural Research at Pusa in Bihar and Orissa, established by Lord Curzon with the aid of a generous donation of £30,000 made by an American philanthropist, Mr. Henry Phipps, in 1903. The purpose in founding the Institute was to advance agricultural research in the country by forming a scientific centre whose activities may have a direct bearing on an occupation which is the mainstay of the people of India, more than 90 per cent. of whom are dependent on agriculture. The Institute is fully equipped with laboratories, a museum, herbaria and an up-to-date scientific library. It has besides an agricultural farm of 830 acres for experimental cultivation and demonstration. The Institute also controls certain other centres of agricultural work, the Imperial Institute of Animal Husbandry and Dairying at Bangalore and Wellington, the Imperial Cattle Breeding Farm, Karnal; and the Imperial Sugar Breeding Station, Coimbatore. The expenditure on the Institute during 1932-3 was nearly a million rupees.

It is only necessary to add that the Government of India decided in August 1934 to remove this Institute to a more central and easily accessible place, to the neighbourhood of Delhi. The recent earthquake in Bihar has damaged the buildings at Pusa, requiring considerable outlays of money for repairs, and it has been argued that this is a suitable opportunity for changing the headquarters of the Institute. The formation of the Imperial Agricultural Research Council in India has given a great impetus to the advancement of agricultural science at this and allied institutions.

The Forest Research Institute at Dehradun, with ample facilities for the study of advanced problems bearing on Indian forestry, including a section for training entrants into the Forest Services, and the Imperial Institute of Veterinary Research at Muktesar in the Himalayas, whose activities are of no small importance to an agricultural country like India, are other institutions which must be mentioned in this connection, though they are on a smaller scale. Government institutions, again, specially meant for training in

advanced technological subjects are (1) the Thomason Engineering College, Roorkee, in the United Provinces, with distinguished traditions in the past, conferring its own diplomas, though there have been proposals for its affiliation to the University of Agra; (2) the Indian School of Mining at Dhanbad in Bihar and Orissa, devoted to the teaching of mining and metallurgy, being almost the only institution in the country, except the Benares Hindu University, which has a section for these subjects; and (3) the Harcourt Butler Technological Institute, Cawnpore, with its branches of General Research, Sugar and Oils. All of them are recognised as institutions of university standard.

Research Institutions

Before passing on to the Institutes of Research in certain Arts subjects, reference must be made to two organisations for the advancement of science, started under non-official auspices, though with the help of generous grants from the government. The Indian Association for the Cultivation of Science and the Bose Research Institute, both of them situated in Calcutta, have been centres of considerable activity in scientific investigation for several years in the past. The Indian Association for the Cultivation of Science was founded in 1876 by the late Dr. Mahendral Sarkar, one of the earliest leaders in India to discover the value of scientific investigations for the country. Besides a well-equipped laboratory and a good library of scientific publications, it has also an Astronomical Observatory and a Lecture Hall. Some of the leading scientific journals of the world can bear testimony to the fact that the Association has been a vital centre for original scientific work, particularly under Sir C. V. Raman, who was till recently its President, and much of whose well-known work in Physics for the Nobel Prize was carried on under its auspices.

The Bose Research Institute at Calcutta was inaugurated in 1917 by the well-known Indian scientist, Sir J. C. Bose, whose researches in plant life and plant physiology demanded a centre for further investigation. Sir J. C. Bose himself has contributed a large sum for placing it on a permanent footing, while the Government of India have also responded generously by the sanction of an annual grant. A special feature of the scientific activities of the Institute is the designing and construction of a large number of highly delicate and sensitive instruments for the measurement of various aspects of plant life, many of them being automatic recorders.

Turning to Research Institutes devoted to Arts subjects, at least two should be mentioned, the first of them being the Bhandarkar Research Institute, Poona, named after the well-known Indian Orientalist, the late Sir Ramakrishna Bhandarkar, and inaugurated on July 6th, 1913, by His Excellency Lord Willingdon, the present Viceroy of India. Its aim is to serve as a centre of research for subjects relating to Indology, though in view of the extensive nature of the subject, a beginning has been made as yet only in a few branches.

One of its most outstanding achievements is a critical edition of the *Mahabharata* in Sanskrit, several parts of which have already appeared and constitute a great tribute to the learning and research of its scholars.

The Indian Institute of Philosophy at Amalner, East Khandesh, was founded in 1916, by the generosity of Seth Motilal Manekchand and Seth Vallabh Das. Its object is primarily to encourage scholars who have studied Western philosophy to get a first-hand acquaintance with Indian thought in general and the philosophy of Sankaracharya in particular. It awards a number of research scholarships every year, and the subjects in which facilities for research are provided include metaphysics, logic, Indian philosophy, ethics and the philosophy of religion.

Serampore College

If the existing universities in India do not go back to any date before 1857, there is at least one institution in the country which was constituted into a regular university with a Royal Charter as early as 1827, though it has ceased to exercise the right of conferring degrees to-day, except in Theology. The reference is to the Serampore College on the banks of the Hoogly in Bengal, founded in 1818 by the well-known educational pioneers, William Carey, Joshua Marshman and William Ward, "for the instruction of Asiatic Christian and other youth in Eastern Literature and European Science." As the town of Serampore belonged to Denmark at the time, King Ferdinand VI of Denmark conferred a Charter upon it and raised it to the status of a university in 1827. By the treaty for "the purchase of the Settlement of Serampore from Denmark by Great Britain" in 1845, the town passed into the hands of the British, but it is interesting to note that the Charter was confirmed by the British Government and the institution was allowed to continue to confer university degrees. The Baptist Missionary Society, to which the College was transferred the next year, decided to drop the privileges of a university immediately on the establishment of the University of Calcutta, though it continues to confer its own Degrees and Diplomas in Theology.

The Indian Women's University, Poona

The Indian Women's University at Poona is not yet a "recognised" institution, being established neither by an Act of the Legislature nor by Royal Charter, but deserves to be mentioned in this connection as a genuine indigenous attempt at the higher education of Indian women. It was founded in 1916, by the efforts of the well-known Indian social reformer, Prof. D. K. Karve, with the following aims :

- (a) To make provision for the higher education of women through modern Indian languages as media of examination and instruction, by starting, aiding and affiliating institutions for such education ;

- (b) To make provision for the training of teachers for primary and secondary schools ;
- (c) To formulate and lay down courses of study specially suited to the needs and requirements of women ;
- (d) To institute and confer Degrees and Diplomas as may be prescribed by the Regulations.

The number of students at the University, including its affiliated colleges at Bombay, Baroda and Ahmedabad, is, however, only 146, a number which is less than the number of women students in the men's colleges of the single city of Poona, due largely perhaps to the circumstance that its degrees and diplomas are not recognised, and women who enter universities, at least in India, do so with a view to entering some profession which is not possible without such passports. The introduction of a vernacular medium is also a serious handicap, as it practically confines admission to those who speak the Marathi language.

There is, however, one point which may be mentioned to its special credit. It has a network of schools, scattered all over the Bombay Presidency, which have brought the benefits of education to classes of Indian girls who might not have had opportunities, otherwise, of acquiring even mere literacy. The university is associated with the name of Shrimati Nathibai Damodar Thackersay, the mother of a well-known merchant prince of Bombay, who gave a large donation to the University in her revered memory, though it was hedged about with several inconvenient conditions which are now matters of dispute between the parties concerned.

The Question of Bogus Universities

The starting of bogus universities which have no right to call themselves by that name, and the granting of degrees and diplomas in return for commercial consideration, have not yet spread very much in India, but it must be said there have been sporadic instances of such activity. The regularly constituted universities of India have had occasion already to protest against such institutions at periodical conferences of their representatives. As early as at the first Conference of Indian Universities held in Simla in 1924, it was resolved to request the Inter-University Board, when constituted, to consider whether it was necessary that the government should take some steps, legislative or otherwise, to prevent the sale and use of bogus degrees in India. After consideration by the Inter-University Board on various occasions, the subject came up again at the recent Conference of Indian Universities and the following resolution was agreed to :

“ That the Government of India be requested to pass legislation so as to prevent diplomas and degrees being awarded by institutions which have no properly recognised courses of study and adequate system of teaching or examination.”

The evil of bogus degrees is not by any means very serious in India (as in the United States, for instance), but early steps may

prevent unhealthy developments. In any case, those who are not sufficiently familiar with conditions in India must distinguish between universities established by the Acts of the legislatures of British India, or by charters of ruling princes, and those which have not such recognised authority behind them.

VI. The Inter-University Board

No account of the universities of India can be complete without a reference to the Inter-University Board, which has attempted, since its formation in 1924, to serve as a co-ordinating agency and bureau of information for the universities of the country.

The Establishment of the Board

The formation of the Board was the result of a Conference of Indian Universities convened at Simla by the Government of India in 1924. Inaugurating the Conference, Lord Reading, the then Viceroy, referred to the rapid increase in the number of universities in India and said :

“ At such a time, it is essential to ensure the preservation of the highest standards of university education and to safeguard against any falling away from the ideals of the best class of university training. With a multiplication of institutions, with alterations in type, with changes in internal systems and with financial stringency affecting the complete execution of projects, there is no small risk of deviation from the right road to educational efficiency. It is a time for conserving and strengthening resources and for using them to the best advantage. It is a time when the newer may lean to some extent on the garnered experience of older foundations, and the latter may in turn derive some assistance from newer methods under trial in the former. It is a time for mutual help and co-operation between universities. A united front must be shown. There must be a joint effort to develop higher education in India to the highest standard. There must be combination to meet reasonable criticism and to remedy defects. Some uniformity of internal organisation seems desirable if there are to be no weak spots in the general system. The work of reorganisation and development lies primarily in the hands of each individual university with the help and control of the local government, but the Government of India will always take a profound interest in the progress of the universities, and it is with the hope of strengthening the structure as a whole and of adding solidarity to the general system that they have initiated this conference.”

A practical result of the conference was the decision to establish an Inter-University Board in the country to bring together the universities which had till then worked without any contact with one another. The statement of aims and objects was as follows :

“ That it is necessary to have a central agency in India :

- (a) To act as an inter-university organisation and bureau of information ;
- (b) To facilitate the exchange of professors ;
- (c) To serve as an authorised channel of communication and facilitate the co-ordination of university work ;
- (d) To assist Indian universities in obtaining recognition for their degrees, diplomas and examinations in other countries ;

(e) To appoint or recommend, where necessary, a common representative or representatives of India at Imperial or International conferences on Indian education ;

(f) To act as an Appointment Bureau for Indian universities ;

(g) And to fulfil such other duties as may be assigned to it from time to time by Indian universities."

The Inter-University Board consists of one representative of each university in India, though at the beginning some of the universities were reluctant to join the organisation, under the impression that membership might interfere with their autonomy, and the personnel reached its full complement only after a few years. The University of Rangoon has recently resigned its membership on the ground that it is too far away from the rest of the universities in India to benefit by their joint deliberations. This is perhaps in anticipation of the impending separation of Burma from India. The Government of India is also represented on the Board by one member, though only in an advisory capacity without a vote, usually the Commissioner of Education with the Government of India. The work of the organisation is carried on by a small contribution from each of its constituent members and the Inter-University Board has also worked in co-operation with the Bureau of the Universities of the British Empire, the present writer representing it, as its secretary at the time, at the Congress of the Universities of the British Empire at Edinburgh in 1931.

Ten Years' Work

Ten years is perhaps not a long enough period in the history of an institution of this type to arrive at a full estimate of its work, but it may be said that the Inter-University Board has given a good account of itself during these years within the limitations imposed on its activities, in that it has not any mandatory powers over universities and its decision can only have a moral influence on its members. Indian universities, like universities in the West, particularly in Great Britain, have been anxious to preserve their autonomy intact and have been apt to resent any kind of interference with their internal policy or organisation.

The Board, since its inception, has followed the excellent practice of meeting at different university centres by rotation, and the occasions have been utilised, not only for deliberating on important academic problems of common interest to universities in India, but also for enabling representatives from other universities to familiarise themselves with all the recent developments at the university centre at which the meeting is held. The Inter-University Board would be pronounced a success, even if it had not done anything else than this annual bringing together of the universities in India. It has besides collected and published valuable information on various academic questions referred to it from time to time by any of its constituent members. Its periodical publications include a *Hand-book of Indian Universities*, a compilation of considerable use to

those who wish to obtain any information regarding the universities of India.

Besides the small annual meetings containing a single representative from each university, the Inter-University Board has also organised larger Quinquennial Conferences of Indian universities, facilitating consideration of university problems by larger assemblies of university leaders. Lord Irwin opened the Second Quinquennial Conference of Indian universities held at Delhi in 1929 and exhorted the universities to cultivate the highest standards of university education :

“ First, the standard of learning and research which the universities as the homes of scholarship owe it to themselves to preserve. . . . Secondly, the necessity of a right standard of judgment ; Thirdly, the standard of conduct.”

This account can be brought up-to-date by a reference to the Third Quinquennial Conference of Indian Universities, again held at Delhi, in March 1934. Opening the Conference, Lord Willingdon, the present Viceroy, referred to the need for co-operation between the universities, restating in other words one of the fundamental aims of the Inter-University Board :

“ The autonomy of a great seat of learning should be respected and preserved, but unrestricted autonomy and competition may create untoward results. There is a tendency for each university to attempt a wider field of activities than its financial circumstances permit ; there are also signs of extravagant duplication and overlapping between universities, which will result, not only in diffusion of effort, but also in reduction of efficiency. It is in consequence of this wide diffusion of effort that Indian universities are still subject to the charge of lifeless uniformity from which, in other respects, they have largely escaped. If teaching and other resources are too widely diffused, there is less likelihood of universities being in a position to make distinctive contributions in a few departments of study, for which they possess special facilities ; they will tend rather to become lifeless replicas of each other.

“ A super-university judging and controlling the eighteen universities that now flourish in India may not be a desirable or a practical ideal. But conferences like yours can have no more fitting object than to review the existing position and the future developments of universities, not so much from the particular needs of each university, but rather from those of India as a whole.”

Other Academic Organisations

Besides the Inter-University Board, which gives the universities in India opportunities for contact for the discussion of educational questions of common interest, there are a certain number of academic organisations which bring university scholars together in various subjects of study. They are annual conferences, not technically a part of the university system in the country, but really serving as the media of communication among university scholars who meet at some university centre and exchange notes by the reading of original papers and by numerous discussions in sectional and general conferences. The occasion is eagerly looked forward to by the

members of the staffs of universities, who are anxious to subject the results of their original work to the scrutiny of brother scholars from all parts of the country.

The largest of these organisations is the Indian Science Congress which has separate sections for the chief sciences and every annual session of which is marked by considerable activity in the reading of scientific papers. It is also usual at the Science Congress, in the presidential and other addresses, to review the progress made in particular branches of science during the year. The Indian Science Congress has had till now a permanent secretarial organisation merely to carry on its correspondence during the year, but it is now proposed to establish an all-India Academy to guide research in the country and give its imprimatur to work of real merit. A constitution for the new body is already under consideration and it is likely to be inaugurated next year. This will be in addition to the Indian Academy of Sciences recently established at Bangalore. The United Provinces have also had for some time an Academy of Science which has been already utilised to admirable advantage by the universities situated within its jurisdiction.

Other organisations of the same kind are the annual Indian Oriental Conference, the Indian Economic Conference and the Indian Philosophical Conference. The annual meetings draw representatives from the universities in large numbers, though membership is not confined to teachers in universities, and their proceedings are a useful supplement to the activities of individual universities. The Government of India has also established in recent years an Indian Historical Records Commission, consisting largely of representative scholars, nominated by the government for the purpose of conserving the large wealth of historical manuscripts and records available in this country.

VII. Some Problems of Indian University Education

It will be obvious even to a casual student of the universities of India that they suffer from serious limitations and handicaps.

The Creation of Traditions

Being of recent formation, most of them cannot as yet boast of inspiring traditions, though the achievements of some of their distinguished alumni and the work of some of their eminent administrators are rapidly creating memories and associations which should remedy the defect in the near future. At least in the case of the older universities, two generations have already passed through them and, as the average undergraduate enters their portals to-day, he can easily think of inspiring predecessors who have made their mark in the public life or administration of the country. In the earlier years, the universities were not perhaps much of a living reality to the student, as contact with them was limited to the examination hall and the Convocation held at the end of his career, at which he

received a degree in the presence of the Chancellor. The increasing assumption of teaching functions on the part of universities and the growth of the residential system, which is a particularly marked feature of the more recent unitary universities, are giving ample scope for the formation of healthy traditions, and it will not be long before the members will feel that they are limbs of one corporation, inheriting the same traditions, pulsating with the same life and entertaining the same aspirations.

A more serious problem affecting the formation of good university traditions is the necessary adjustment of the age-long spirit of Indian life and civilisation to the different and new impulses of the West. This is not a need peculiar to the universities only; it affects the entire atmosphere of the country and has created problems not easy of solution. The great university traditions of ancient India have been lost, the teacher's life of poverty and self-sacrifice and his spiritual dedication to scholarship; the new inspiration of high-class modern university life has not taken its place with readiness. But this is obviously a defect which can only be cured with the lapse of time. There is already gratifying evidence of students appreciating all aspects of a rich modern university life, without aiming at the narrow ideal of being only bookworms, and there is an increasing band of young men on the staffs of universities whose ambitions extend far beyond the routine work of the classroom and who are determined to see that they are among those, however humble, who wish to enlarge the bounds of human knowledge.

It has often been observed that the educational traditions of ancient India laid too much stress on the development of the faculty of memory and did not offer sufficient scope for the exercise of originality or invention. Respect for authority is such an ingrained characteristic of the Indian mind that it is apt to hesitate to indulge in daring speculation, and it will perhaps be a matter of centuries before it can develop a spirit of courageous criticism. Indian philosophic thought in its best days was not devoid of audacious reasonings, but the dead-weight of respect for the printed word and the commentator still operates in the atmosphere of Indian universities. One can only look forward to the progress of the spirit of scientific investigation in them, to produce the correct outlook which is of fundamental importance to true university life.

Research

Though in recent years Indian universities have begun to realise that the aim of a university is not merely to impart the available knowledge of the world to students who may seek it at their hands, and that the advancement of research is equally important, there is not as yet adequate provision for original investigation in many branches of arts and science. The organisers of the average college in India are apt to aim only at the efficient teaching of the students (including, it may be, post-graduate students in some cases), to be demonstrated in good examination results, rather than at any pro-

vision for research. All the available time and energy of the teacher are often absorbed in the routine work of teaching, and he has rarely any leisure for independent study and research on his own account. Here again, considerable improvement can be noticed in recent years and, at least in appointments directly under the control of the universities and in the unitary and residential universities, research is being increasingly encouraged as an integral part of a teacher's work. In fact, statements are annually demanded in some of the universities of the research and publication work of the staff, and periodical accounts are published of the contributions to knowledge made by their members. There has been an enormous increase in the publication of research papers in several branches of knowledge, in science as well as in arts.

Owing, perhaps, to the newness of the work in modern Indian life and the easy recognition it obtains from the public, as well as from the authorities concerned, there has even been a tendency in certain quarters to neglect legitimate teaching work. It would be a fatal day for any university when its ablest teachers devote themselves entirely to the work of research, without imparting their inspiration for knowledge and intellectual investigation to the young men entrusted to their charge. It is hoped that Indian universities are already sufficiently warned against such a danger.

Finance

The want of adequate resources for the effective organisation and permanent maintenance of university activities is another defect which weighs upon most of the universities in India. It is not the result of the present economic depression only, nor any sudden alteration in economic circumstances due to an event like the Great War, but an almost chronic state of inadequate finance. India's economic resources even to-day are perhaps not adequate for the maintenance of several high-class modern universities. At the same time, too few, even of the wealthy public, recognise that universities are among the most deserving institutions of a nation's charity. Barring some wealthy endowments which have been made to the University of Calcutta and recently to the University of Nagpur and the example of the Annamalai University in South India, created by the generosity of a single merchant-prince, the universities have not attracted many private benefactions. They are still almost entirely dependent on public funds and fees from students. The latter, again, form a very much smaller proportion of the total revenues of the universities than in Great Britain and most Western countries. There is still a tendency to imagine that the duty of establishing and running universities for the benefit of the people is entirely one for the government. It is, however, not difficult to foresee that, with the gradual enlightenment of public opinion, wealthy endowments are likely to flow to them in greater volume than in the past, especially as the ancient Indian tradition eulogises the gift of knowledge as the highest charity an individual can exercise.

Danger of Dependence on Governments

The abject dependence of most of the universities of India on public funds for their current expenses and for opportunities of expansion is fraught with a serious danger, to which attention has already been drawn in many educational quarters. Except in certain universities, where the Acts of Incorporation guarantee the payment of certain annual sums for recurring expenses, and the creation, in some special cases, of Endowment Funds by government grants spread over several years, the average university in British India depends on the annual vote of the local legislature for its very existence. It is doubtful if even the provision for funds in the Acts of Incorporation, either recurring or non-recurring, confers any permanent financial security, as the clauses can obviously be rescinded by a later Act. Signs have not been wanting that Legislative Councils can sometimes be unfriendly to universities, and there are political parties in India which cannot be said to be very appreciative of higher education or university culture. One dreads to imagine what will happen when they come into power in the State.

This helpless dependence on the legislature is to be deplored, not merely because of its financial implications, but also because of the constant danger of lay interference in university activities which it entails. It may be difficult to maintain that all the universities in India deserve absolute autonomy to-day and that their academic life and traditions are sufficiently well established not to need any control from legislative authorities, but all talk of university autonomy would be futile, so long as universities have no permanent endowments of their own and have to depend on the goodwill of the legislature, brought to the test, with all its temptations, once every year when the budget of the province is under discussion. Inroads have already been made into the constitutions of many universities by introducing popular and elected elements into their governing bodies, with the well-intentioned aim of interesting the general public in their welfare and progress. These two dangers, one internal and the other imposed by external authority, are enough to cause serious anxiety to all those interested in the future of universities in India.

The Influence of Political Agitation

A handicap of another kind is the constant injury to university life and work resulting from the spread of political excitement in the country. It is not yet recognised widely that the sanctity of educational institutions should not be invaded by political rancour, and there can be no greater service to the country than that its younger generation should be allowed to pursue their studies in undisturbed peace, so that in the fullness of time they may shoulder the political responsibilities which may be opened to them.

The Civil Disobedience movement in 1920 and its recrudescence in 1930, though only for a short period, seriously upset life in the

universities, as students were invited by public leaders, with all their prestige and reputation for patriotism, to leave their studies and join the political movement. The bulk of the student community happily showed common sense and courage, and refused to fall a prey to such evil counsels, but these political onsets constitute a standing menace to the peacefulness and efficiency of academic life. They are also calculated to impair discipline and respect for authority, without which there can be neither intellectual nor moral progress in educational institutions. Here again, there is matter for congratulation in the circumstance that the movement for the boycott of colleges in 1930 received very much less response than its predecessor ten years earlier, and it is clear that Indian public opinion is veering to the correct point in the matter.

The Incubus of Examinations and Intermediate Work

Turning to the actual life and organisation of the universities, it is not difficult to realise that there are some aspects which need change, though immediate reform may not be possible in all cases. Most of the universities are burdened with duties relating to stages of instruction which are not of university standard. Except in some of the more recent universities, the Matriculation and Intermediate examinations still continue to be held by the universities themselves and Intermediate classes are actually parts of their affiliated colleges. It is generally agreed that the members of the Calcutta University Commission were right when they recommended that universities should only concern themselves with post-Intermediate examinations, though the reform has been given effect to only in the United Provinces, where a Board of High School and Intermediate Education has relieved the universities of Allahabad, Lucknow and Agra of the burden of lower work, enabling them to concentrate on real university studies. In the case of the Agra University, however, whose jurisdiction includes Rajputana, Ajmer-Merwara and Gwalior besides the whole of the United Provinces, this reform has been nullified by the permission accorded to the affiliated colleges to keep their Intermediate classes, though subordinate to the non-university Boards of High School and Intermediate Education in the United Provinces and in Rajputana. Elsewhere in the country there are special statutory boards for the control of the High School examination, as in Delhi and Nagpur, and in the case of Dacca the separation extends to the Intermediate examination. The evil is not merely that universities are burdened with what is really school work, but that a large number of immature boys, needing a different kind of discipline altogether, are attending institutions which profess to organise life and studies of a university standard. There is, however, evidence that the evil is being widely recognised and reform is imminent in the case of other universities also. The recent Punjab University Enquiry Committee recommended that the University should be relieved of the burden of

Matriculation and Intermediate work, and there are proposals in Bengal also for effecting a similar reform.

The Vernacular Problem

It will, however, not be easy to effect another reform for which there has been an increasing demand in recent years, the teaching of subjects through the medium of the vernacular, even in college classes. It is a legitimate demand that a student should have opportunities of acquiring knowledge through his own mother tongue, but in the peculiar circumstances of India it would seem almost an impossible task to ensure it for a long time to come. The multiplicity of languages is no small bar, while the poor literatures available in them, not only in modern scientific subjects, but also even in such subjects as history and philosophy, constitute another formidable obstacle. In urban areas, where universities are generally situated, as in Bombay and Madras, there are several languages in the same city, and it would seem to be almost a hopeless task to divide each class into several sections, in accordance with the languages spoken by the students who seek admission into them. In areas like the United Provinces and the Punjab the problem has been complicated by the demand made by the Hindu and Muslim communities for instruction, not through a common language which may be styled Hindustani, but through their separate languages of Hindi and Urdu which have shown considerable divergence in vocabulary and general outlook in recent decades. It is true that the Osmania University, Hyderabad, has been attempting to impart instruction through Urdu even in such faculties as Medicine and Engineering, but it is no solution of the problem, as Urdu is not the mother tongue of the people of the Nizam's dominions, and less than 10 per cent. of the inhabitants of the State speak the language. If it is a success, it will, however, demonstrate the possibility of an Indian language being used as a medium of instruction in universities. The Benares Hindu University has just decided to introduce Hindi as a medium of instruction in the Intermediate classes, though the students of the University are not drawn entirely from the Hindi-speaking areas of India. This will perhaps have the effect of narrowing its range of students and making it almost a provincial institution instead of an all-India one.

It is interesting to note that this question came up for consideration at the recent Quinquennial Conference of Indian Universities held in Delhi in March 1934, at which a resolution, even in the following modest words, could not be carried: "That the Conference recommend that the universities should consider the desirability of making the Indian languages media of instruction at as early a date as practicable." It will, however, be conceded, even by those who do not believe in the possibility of imparting higher instruction through an Indian language, that the present arrangement is unnatural and the idea of imbibing all instruction through a foreign medium is a serious limitation.

Indian and Western Degrees

Reference should perhaps also be made to the fact that, at least till recently, Indian universities were suffering from a sense of inferiority, and they acquiesced easily in the opinion that the products of Western universities were necessarily superior to those who had received their education in India. It is not denied that, at least in many of the British universities, the facilities for study and the opportunities for culture are superior, and the value of foreign travel is immense ; but there have been degrees in them other than of the Honours standard, not implying meritorious work, and there are some universities in America and the continent of Europe whose degrees cannot, without grave injustice, be regarded as necessarily superior to those awarded in India. It may be said that Indian universities have now come to a recognition of this failing ; they are anxious to consider the personal merits of candidates for appointment, independently of the country where they received their degrees, and are also more critical and discriminating with regard to the degrees conferred by the universities of the West, with their varying standards. There is no longer a blind worship of foreign degrees as foreign degrees, and at least some of the more advanced universities, like Allahabad, for instance, have begun to value their own degrees, especially when their students have achieved the distinction of a First Division.

This result has also been helped by the decision of the Public Service Commission in India, which recruits candidates to all the higher services in the country, to treat a good Indian degree as equivalent to the corresponding degree in the West, even in Great Britain, the standard of whose examinations and the atmosphere of whose academic life are recognised as generally sound. There have been numerous instances in recent years of candidates with Indian degrees being preferred for some of the best appointments in the educational world to those who had the best degrees of the West. Public opinion has also supported these decisions. It is recognised that some of the most distinguished names in Indian scholarship have been of those educated in Indian universities, and the examples may be mentioned of Sir C. V. Raman, the Nobel Prizeman in Physics, Sir Jadunath Sarkar, the well-known historian of the Moghul period of Indian history, and Sir Radhakrishnan, who has achieved considerable distinction as an expounder of Indian philosophical thought.

VIII. Some Achievements of the Indian Universities

If reference has been made to some of the handicaps and limitations of Indian universities, it is only proper also to invite attention to some of the new impulses to progress apparent in them.

Education of Women

The gradual increase of women students is a welcome feature. Women were conspicuous by their absence till very recently, and

the most enlightened of Indian parents were inclined to look upon university education as something unnecessary, if not positively harmful, to their daughters. There is now a healthy reaction and women are coming in fairly large numbers to seek education in the universities, not merely to pursue professions like teaching and medicine, for which there is such great need in India, but even merely for the sake of culture. The outlook of at least the enlightened Indian is not mid-Victorian, and he has travelled far beyond the ideal of Tennyson :

She knows but matters of the house
And he, he knows a thousand things.

According to the latest *Quinquennial Review of the Progress of Education in India*, the number of women students in the colleges, excluding professional institutions, increased between 1927 and 1932 from 1,933 to 2,966, and there is no doubt there has been a further increase since. While only 130 women took their degrees in all the universities of India in 1927, the number was 226 in 1932. These numbers are, of course, inadequate for a region with the size and population of India, but it is clear that the country has made a good start in the matter of the higher education of women.

Co-education

It must be noted in this connection that this has also implied co-education in many of the institutions. There are separate colleges for women in areas in which the *pardah* system is particularly rampant, or the number of women students is so large that they cannot be accommodated in the existing colleges for men (as in Madras), but women have been coming in larger numbers to men's colleges to receive their education side by side with them. Co-education is the rule in the Bombay Presidency, where there is not a single college set apart for women, and there were as many as 704 women reading in the men's colleges in 1932. In other provinces, it is also becoming quite usual for women to attend the men's colleges, not only for special post-graduate and professional courses, but also for ordinary college classes.

Growth of Social Activities

Increasing interest in the social life of the university is another welcome phenomenon in the student world. The ancient Indian tradition was always for intense and concentrated study and did not contemplate participation in extra-mural activities, nor were there adequate facilities for the purpose in the earlier stages of modern university organisation in India. University unions of various kinds have now come into existence, very often with separate buildings of their own and sometimes even equipped as attractive social clubs. Everybody is now willing to recognise, except perhaps a few old

orthodox parents, that the responsibilities of university life extend far beyond the bounds of the class-room.

Another aspect of this desire for a richer university life can be noticed in the increased interest perceptible everywhere in athletic activities. Several universities, notably the Punjab, have now Directors of Physical Culture and encouragement is being afforded to affiliated colleges also to pay special attention to this subject. Athletic tournaments are on the increase and it is gratifying to find that there have recently been inter-university contests also, students going all the way from Lahore to Calcutta or Aligarh to Madras, to measure their strength in such tournaments. The rigours of a tropical climate are a serious handicap in some provinces, but in areas like the Punjab, where there is the additional stimulus of an inspiring martial tradition, the athletic efficiency achieved is of a standard of which any university may be proud. A College of Physical Culture, rendered possible by a magnificent donation from Canada, has also recently been established on up-to-date scientific lines at Madras under the auspices of the Young Men's Christian Association, which has already much useful work to its credit.

Laboratories and Libraries

The gradual improvement of the facilities necessary for university teaching is another phenomenon which cannot pass unnoticed. Universities have been vying with one another in the provision of well-equipped laboratories and libraries. Some of the newer universities of the unitary and residential type created by large endowments, or with the advantage of considerable capital from other sources, have started with admirable facilities in the matter of laboratories fitted for the most advanced work. Allahabad, Lucknow, Benares and Aligarh are examples of this type, while the other universities have also responded to the new demands by considerable expansion in science. The Punjab University has extensive chemical laboratories of its own, besides well-equipped laboratories in other subjects at the Government College, Lahore. The Post-Graduate Department in Science at the University of Calcutta has enjoyed great distinction in the scientific world for the last several decades, and the names of such distinguished scientists as Sir C. V. Raman and Sir P. C. Roy have been intimately associated with it. The University of Madras is now supplementing the science laboratories of the colleges by its own laboratories in biology and bio-chemistry, and Bombay has got its Royal College of Science, besides developments in technology, to which reference is made elsewhere in this article. In spite of their recent creation, Patna and Nagpur have made considerable headway in the matter of the construction of science laboratories at great cost.

It will perhaps take a long time before the libraries of Indian universities rise to the magnitude of the libraries of the West, nor

will they easily match them in the quality of their material. But here again there is appreciable progress to record, and the latest statistics regarding the number of books are not discouraging. The following figures of the numbers of books in Indian universities, excluding collections of manuscripts in some cases, are taken from the latest *Quinquennial Review of the Progress of Education in India*. It will be noted that in some cases numbers have doubled within the period of five years :

UNIVERSITY	NUMBER OF VOLUMES		UNIVERSITY	NUMBER OF VOLUMES	
	1927	1932		1927	1932
Calcutta . .	100,000	102,096	Aligarh . .	25,000	25,190
Bombay . .	25,160	41,172	Rangoon . .	25,000	14,142
Madras . .	44,460	74,892	Lucknow . .	31,925	43,572
Punjab . .	53,644	75,434	Dacca . .	54,000	78,917
Allahabad .	62,268	80,998	Delhi . .	8,350	12,005
Benares . .	50,000	64,635	Nagpur . .	—	18,000
Mysore . .	14,640	20,663	Andhra . .	6,000	18,000
Patna . .	6,866	12,627	Annamalai .	—	31,032
Osmania . .	19,807	29,725			

The University of Agra, which is only an affiliating university, reports that it has made a beginning in the establishment of a University Library with 3,742 volumes. In the case of Calcutta, the figures exclude books in departmental libraries in arts and science and law, while, in the case of all affiliating universities, the figures are of course exclusive of the libraries of colleges. The libraries of the Punjab and Madras Universities have perhaps the best methods and general organisation of any university in India. The latter will soon have one of the finest buildings in any Indian university for housing its collection of books.

IX. Some Effects of the Crisis in Employment

There has been growing discontent with the universities owing to the extensive prevalence of unemployment among the educated middle classes, though it should be easy to point out that universities cannot be held responsible, in the main, for the present state of affairs. Universities are not employment agencies and they obviously cannot regulate admission in accordance with the number of appointments available in the country. While professional courses are rightly a part of university organisation, it cannot be said that university courses should be so modelled as to lead directly to employment. Their aim is rather to evolve a type of mind and culture which can be turned to any useful work. It is also well known that the problem of unemployment is not peculiar to India and is due in part to world conditions which cannot be cured by some magical action on the part of the universities.

The Movement to Raise University Standards of Admission

The discontent is, however, expressing itself in a desire for a twofold educational reform. The conviction is gaining ground that there is enormous waste of educational effort in the universities, as in the lower stages of Indian education, owing to the presence in them of large numbers of students who are not likely to benefit by university education. The latest *Quinquennial Review* of the Government of India rightly observes : "The Indian university system is still overburdened by an excessive number of students, often with inadequate qualifications. This weakness has been accentuated by the removal of the age-limit for matriculation, with the result that the more competent students, who might be expected to raise the standard and tone of the universities, often enter a university prematurely and render even more complex and difficult the teaching and other arrangements." It can be proved by statistics that out of those who join the universities every year, only a fourth emerge with a degree at the end of their stay of four years. This implies an appalling waste of money and effort, not only to the student and his parents, but also to the State, as the education of almost every student costs a sum of money to the government, most colleges and universities being in receipt of assistance provided in the form of grants, if the institution is not directly managed by the government and the entire expenditure met by the tax-payer. To raise the standard of admission and to train students specially for university courses, eliminating those who are not fit for higher education in arts and science by diverting them to technical, commercial and industrial courses, is a reform almost within sight. The recent Punjab University Enquiry Committee has made detailed recommendations on the subject, and it is also being discussed elsewhere in India, particularly in the United Provinces.

Standards of Admission to the Public Services

This, combined with certain other reforms which are receiving equally serious consideration, should result in an appreciable reduction of those entering colleges. The prescription of a university degree as the minimum qualification for the services, even in some of the lower ranks, is partly responsible for the rush to the colleges, and it is being realised that this requirement should be dropped as early as possible and be replaced by other tests particularly suitable for the special work in government and other offices. The Public Service Commission now conducts special examinations for entry into the clerical services of the Government of India and, at least in the Presidency of Madras, the procedure is followed by a local Public Service Commission.

Prolongation of Degree Courses

The extension of the Degree course to three years after passing an examination of the present Intermediate standard is another

reform actuated by almost similar motives, though the raising of the present standard has also been in contemplation for some years purely as an academic proposition. Having been suggested formally for the first time by the Calcutta Commission and brought up before various educational bodies, including the Inter-University Board, the reform has been delayed, partly owing to the inability of the universities to act together and partly owing to the reluctance to add one more year to the educational system, especially in view of the widespread conviction that a year's reduction is possible in the present school course almost all over India, allowing for small differences. The present trend of opinion can perhaps be summed up in the resolution on the subject passed at the last Conference of Indian Universities held in March 1934 :

" That while the Conference favours the extension of the course of study for the Degree examination over three academic years instead of two at present, it is at the same time strongly of opinion that it would not be desirable to add one year to the ordinary Pass Degree course or to reduce the period of study for the Degree examination from four years after the High School stage to three unless and until the standard of instruction in secondary schools is materially improved.

" That with a view to effecting such improvement in secondary education and thus making possible a higher standard of university education, the Conference is of opinion that the period of study in a university for a pass degree should be at least three years, although the sessional length of the period during which a pupil is under instruction should not be increased, but they are of opinion that this period should be divided into four definite stages of (1) Primary, (2) Middle (in both of which stages the medium of instruction in non-language subjects should be exclusively the Vernacular), (3) High Secondary—in which stage the medium of instruction should be Vernacular (wherever this is practicable), and (4) University Education, covering five (or four), four (or five), three years and at least three years respectively—there being a formal examination at the end of each stage only, thus avoiding the abuse of too frequent formal examinations.

" The Conference is further of opinion that until this reorganisation is effected, the total period of study after the passing of the Matriculation, prescribed for a pass degree, should not be reduced from four years (which is the period usually prescribed by Indian universities at the present time) to a period of three years."

Provision of University Technological Courses

Another reform which has been more and more in evidence in recent years is the desire to provide professional courses in universities in technological subjects, besides the usual courses in engineering, medicine, agriculture and teaching. It is an old complaint that the courses of instruction in Indian universities are too literary and do not cater for bread-winning pursuits. The same charge can perhaps be made against some of the best universities of the world, and it was never intended that universities should confine themselves mainly to the narrow purpose of enabling their alumni to earn a livelihood, though in a poor country like India the aim is sure to bulk largely in any scheme of education. The delay in giving effect

to this reform has been due to many reasons : the prejudice of the older generation which sticks to the opinion that the purpose of university education is primarily cultural ; the absence of large-scale industries in the country, which prevents the successful formation and maintenance of high-class Technological Institutes worthy of a university ; and the want of funds required for the enormous outlays demanded by such schemes.

The prevailing discontent may be said to have come to a head with the present acuteness of the problem of unemployment, and the subject naturally assumed considerable importance at the recent Conference of Indian Universities. The following resolutions draw attention to the need felt in the direction by all the universities of India :

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" This Conference is of opinion that basic technological training is best accomplished through the universities and should form an increasingly important part of university studies in the relevant faculties, and that to enable the universities to perform this function, the Central, Provincial and State Governments should be requested to give special help to the universities for the purpose. That the Conference is of opinion that as an essential for a degree in technology, the basic technological training should be supplemented by training in special industries by means of demonstration plants and later on in commercial factories and in workshops.

" Also that the Government Departments or private firms which receive contracts from governments should be requested to co-operate with the universities in the matter of practical training.

" This Conference is of opinion that in Technological education, there should be the fullest co-operation between the universities of India."

It is interesting to note that the Inter-University Board, in view of the importance of the subject and the possibility of co-operation amongst universities of India in the matter, has made an enquiry into the progress already made in Indian universities providing for courses in technology.

Recent Progress in University Technological Teaching

The University of Calcutta has already two Technological Departments, viz. the Departments of Applied Physics and Applied Chemistry, owing their origin to the munificence of the late Sir Rashbihari Ghosh in 1920. Subjects like motive power technology, electro-technology, high vacuum technology and refrigeration are taught in the Department of Applied Physics, while in the Department of Applied Chemistry the University provides courses in oil technology, fermentation, industries, silicates including glass and cement, dying and bleaching, drugs, high-pressure technique in chemical industries and fuel technology. The University of Bombay has instituted a two-year course in Technology since the beginning of the current academic year, open to those who have taken the B.Sc. Degree in Honours in Chemistry with Physics as a subsidiary subject. While the University of Madras is undoubtedly of the

opinion that "it should embark upon a scheme of technological education in a few selected branches of specific interest and applicability to Madras," it is not able to do so at present with its own resources and is therefore contemplating schemes for the establishment of a Central Technological Institute at Madras with the co-operation of the Andhra and Annamalai Universities, and perhaps also of the Mysore and Osmania Universities. The Andhra University has, however, been able already to open a College of Science and Technology from its own independent resources. The southern universities have also the advantage of close proximity to the Indian Institute of Science at Bangalore, one of whose professed aims is the application of science to the progress of industries.

The University of the Punjab has been alive for a long time past to the needs of technological education and has a Department of Applied Chemistry working in close co-operation with the Honours School in Chemistry. The work achieved by the Department in various industries has been of such value that its co-operation has been sought by capitalists, and several smaller concerns of an industrial nature have already been started in the province, with the assistance of young men who have had the benefit of training under its auspices.

The Benares Hindu University has made arrangements, almost from the very beginning, for the teaching of many departments of applied science of special application to the present industries in India. Subjects like soap-making and ceramics have been taught for several years with considerable success and a Department for Pharmaceutical Chemistry is one of its latest activities. The Osmania University, Hyderabad, has arrangements rapidly progressing for the establishment of a Central Technical Institute under its auspices. The Nagpur University has had the good fortune to receive a very large bequest for the purpose by the will of the late Rai Bahadur Lakshmi Narain, a merchant from south India who settled in the Central Provinces and made a large fortune in mining, though the bequest is still subject to litigation, and it can be utilised only for the teaching of applied science and chemistry to "Hindu students domiciled for not less than six years in the Central Provinces and Berar." Pending the working out of details for the establishment of a Technological Institute under the auspices of the University, part of the income from the endowment is used for the award of scholarships for the study of technology abroad.

In other universities, where technology has not yet received sufficient attention, it is only due to lack of funds or to the fact that the details are still under discussion, and not due to any want of appreciation of the need of technological training for India. It can therefore be safely predicted that one of the important directions in which universities in India will move in the next decade will be in that of added facilities for technological training. It may even lead for some time to an unfortunate reaction against the cultural courses of universities.

X. The Future

While such changes are in contemplation with regard to the internal details of university courses, it is not difficult to see that there is a desire to adjust the constitution of universities to the altered conditions of to-day.

Composition of Governing Bodies

In the case of some of the older universities, there is a further demand for liberalisation, reducing the element of government nomination and increasing the proportion of elected members in the highest administrative bodies of the university. This does not necessarily indicate a desire to entrust the decision of academic questions to non-academic persons, and wise adjustments will be made to ensure that, while the community is given opportunities for taking interest in university affairs by admitting leaders of public opinion to membership of bodies like the Court, the decision of purely academic questions will rest with the members of the teaching profession themselves, constituted into academic councils or similar organisations.

The Federal Idea

It is impossible to say what precise form will be taken by the universities which may come into existence in the near future in India, as it will depend largely on the circumstances of each case, but the feeling is gaining ground that they need not all be unitary and residential universities. Public and even academic opinion seems to have travelled a considerable distance since the days of the Calcutta University Commission, which held up the ideal of unitary universities for all schemes of future development in India. The feeling is gaining ground, at least in some quarters, that unitary universities tend to be very expensive, that they do not give sufficient scope for the development of college traditions and the play of a healthy corporate life in small units, and that there is no reason why other avenues of academic expansion should not be explored in the future.

This desire has found practical expression in proposals which have just been put forward by the Government of India for introducing the principle of federal organisation into the university which is in a sense under its special care, the University of Delhi. This University does a certain amount of teaching on its own account at present, but the bulk of the work is done in affiliated colleges, each independent of another, every institution being almost a self-contained unit. The suggestion has been made to the authorities of the University that the colleges can be combined into a Federation, participating in varying measure in the direct teaching work of the University and not losing their own individualities as colleges with peculiar traditions and atmospheres of their own. An acceptance of this scheme implies raising the colleges from being

merely affiliated units, preparing candidates for examinations, to active co-sharers in the university life and teaching, thus wiping off one of the most serious defects of the affiliating system. These suggestions, which can be traced ultimately to the recommendations of the Hilton Young Committee on the University of London, have also been made for the University of the Punjab, at least as regards the colleges situated at and near Lahore, it being obviously impossible to bring the outlying colleges into such a federal scheme. It remains to be seen whether the scheme will not also be taken up by other affiliating universities.

The Task of the Universities

But, whatever differences there may be with regard to such externals as constitutional forms, it is clear that, as soon as the present financial depression is over, there will be a definite movement for raising standards and increasing efficiency in all the universities of India. There has been a desire for a considerable time that Indian universities should advance to the level of being self-contained, so that there should be no need for students to go abroad for education, except in special cases for advanced study in subjects for which adequate facilities are not possible in India and for the general benefits of foreign travel.

• It is also being widely recognised that the increased responsibilities which will be imposed upon the intelligentsia of the country by the new Constitution which will soon be inaugurated, can be met only by a decided improvement in the conditions of higher education. The universities cannot be expected to turn out administrators and legislators of the necessary calibre, unless they are supplied with all the necessary resources for ensuring the most efficient standards of education. To those familiar with the achievements of Indian universities in the past, during the comparatively short period of their existence, and the aspirations of the patriotic statesmen of to-day for educational advancement, it is more than evident that the foundations of higher education have been well and truly laid, and it will not be long before her centres of higher education compare favourably with some of the best universities of the West in all that contributes to learning and culture.

TABLE I

STATISTICS OF UNIVERSITIES IN INDIA, 1931-2

UNIVERSITIES AND COLLEGES : STUDENTS AND TEACHERS

No: 8.—The figures in bold type denote the number of Institutions ; the others the number of Students and Teachers

UNIVERSITY TYPES OF INSTITUTIONS	NUMBER OF INSTITUTIONS AND NUMBER OF STUDENTS READING FOR								TEACHING STAFF		
	ARTS AND SCIENCE	EDUCA- TION	ENGIN- EERING	MEDICINE	LAW	COMMERCE	ORIENTAL LEARNING	AGRI- CULTURE	TOTAL	NUMBER OF TEACH- ERS	AVERAGE NUMBER OF STU- DENTS PER TEACHER
1. Calcutta :											
University Depts. or Classes	17. 1,000	—	—	—	—	2. 150	5. 107	—	24. 1,257	239	5
Affiliated Colleges . .	45. 20,482	3. 77	1. 231	3. 1,395	3. 2,537	1. 581	—	—	56. 25,303	1,320	19
Total	62. 21,482	3. 77	1. 231	3. 1,395	3. 2,537	3. 731	5. 107	—	80. 26,560	1,559	17
2. Bombay :											
University Depts. or Classes	1. 87	—	—	—	—	—	—	—	1. 87	4	22
Affiliated Colleges . .	20. 11,368	1. 75	2. 311	2. 778	4. 1,339	2. 314	—	1. 227	31. 14,412	773	19
Total	21. 11,455	1. 75	2. 311	2. 778	4. 1,339	1. 314	—	1. 227	32. 14,499	777	19
3. Madras :											
University Depts. or Classes	8. 70	—	—	—	—	—	6. 1	—	14. 70	28	21
Constituent Colleges . .	8. 4,016	5. 197	1. 598	1. 568	1. 516	—	3. 47	—	17. 5,942	449	13
Affiliated Colleges . .	39. 9,697	1. 50	—	—	1. 324	—	13. 385	1. 142	55. 10,598	897	12
Total	55. 13,783	4. 247	1. 598	1. 568	2. 840	—	22. 432	1. 142	86. 16,610	1,374	12

¹ Includes University Law College, which is an affiliated institution.

² Of the 14 Departments attached to the University, 12 are concerned with research only.

TABLE I—continued

UNIVERSITY TYPES OF INSTITUTIONS	NUMBER OF INSTITUTIONS AND NUMBER OF STUDENTS READING FOR									TEACHING STAFF		
	ARTS AND SCIENCE	EDUCA- TION	ENGIN- EERING	MEDICINE	LAW	COMMERCE	ORIENTAL LEARNING	AGRI- CULTURE	TOTAL	NUMBER OF TEACH- ERS	AVERAGE NUMBER OF STU- DENTS PER TEACHER	
4. Punjab : University Depts. or Classes Constituent Colleges Affiliated Colleges	13.	736	—	—	—	—	—	—	13.	736	85	9
	—	—	—	—	—	—	—	—	3.	869	41	21
	43.	14,187	1. 149	1. 256	2. 558	1. 625	1. 149	1. 216	48.	15,366	886	17
Total	56.	14,923	1. 149	1. 256	2. 558	1. 625	1. 149	1. 216	64.	16,971	1,012	17
5. Allahabad : University Depts. or Classes	14.	1,335	—	—	—	—	—	—	17.	1,746	105	17
	—	—	—	—	—	—	—	—	—	—	—	—
6. Benares Hindu : Constituent Colleges	2.	1,898	1. 51	1. 505	—	1. 112	3. 427	—	8.	2,993	190	16
	—	—	—	—	—	—	—	—	—	—	—	—
7. Mysore : University Depts. or Classes Constituent Colleges	5.	1,682	—	—	1. 160	—	—	—	6.	1,842	134	14
	3.	735	28	1. 146	1. 82	—	—	—	5.	991	168	6
	8.	2,417	28	1. 146	2. 242	—	—	—	11.	2,833	302	9

TABLE I—continued

UNIVERSITY TYPES OF INSTITUTIONS	NUMBER OF INSTITUTIONS AND NUMBER OF STUDENTS READING FOR										TEACHING STAFF	
	ARTS AND SCIENCE	EDUCA- TION	ENGIN- EERING	MEDICINE	LAW	COMMERCE	ORIENTAL LEARNING	AGRI- CULTURE	TOTAL	NUMBER OF TEACH- ERS	AVERAGE OF STUD- ENTS PER TEACHER	
8. Patna : Affiliated Colleges	11. 3,840	2. 84	1. 108	1. 261	2. 446	—	—	—	17. 4,739	336	14	
9. Osmania : Constituent Colleges	6. 692	1. 12	1. 46	1. 57	49	—	—	—	9. 856	165	5	
10. Aligarh Muslim : University Depts. or Classes	8. 888	1. 43	—	—	2. 162	—	7. 57	—	18. 1,150	105	11	
11. Rangoon : Constituent Colleges	2. 1,220	1. 91	51	1. 82	88	—	—	—	4. 1,551	168	9	
Affiliated Colleges	1. 123	—	—	—	—	—	—	—	1. 123	10	12	
Total	3. 1,343	1. 91	51	1. 82	88	—	—	—	5. 1,674	178	9	
12. Lucknow : University Depts. or Classes	2. 884	1. 11	—	1. 237	1. 420	1. 55	1. 206	—	7. 1,813	120	15	
13. Dacca : University Depts. or Classes	10. 719	1. 93	—	—	1. 237	1. 24	—	—	13. 1,063	107	10	
14. Delhi : University Depts. or Classes	2. —	—	—	—	1. 98	—	—	—	3. 98	11	9	
Constituent Colleges	6. 1,844	—	—	—	—	1. 84	—	—	7. 1,928	99	19	
Total	8. 1,844	—	—	—	1. 98	1. 84	—	—	10. 2,026	110	18	

* One of these, the University College, has Departments in various subjects, such as Law, Engineering, Forestry, etc.

* A College managed by the University.

* Includes 19 students studying Forestry.

* There are no separate Colleges for Law, Commerce and Oriental Learning, but teaching is conducted under Faculties in the Canning College.

TABLE I—continued

UNIVERSITY TYPES OF INSTITUTIONS	NUMBER OF INSTITUTIONS AND NUMBER OF STUDENTS READING FOR								TEACHING STAFF		
	ARTS AND SCIENCE	EDUCA- TION	ENGINE- ERING	MEDICINE	LAW	COMMERCE	ORIENTAL LEARNING	AGRI- CULTURE	TOTAL	NUMBER OF TEACH- ERS	AVERAGE NUMBER OF STU- DENTS PER TEACHER
15. Nagpur : Constituent Colleges . . . Affiliated Colleges . . . Total . . .	5. 1,878	1. 24	—	—	1. 345	—	—	1. 107	1. 345 7. 2,009	7 125	49 16
16. Andhra : University Depts. or Classes Affiliated Colleges . . . Total . . .	1. 30 10. 3,219	— 1. 123	—	— 1. 174	—	—	7. 259	—	1. 30 19. 3,775	6 327	5 12
17. Agrā : Affiliated Colleges . . .	14. 2,209	—	—	1. 174	—	—	7. 259	—	20. 3,805	333	11
18. Annamalai : University Depts. or Classes Total : University Depts. or Classes . . . Constituent Colleges . . . Affiliated Colleges . . . Total . . .	2. 462 83. 7,893 27. 10,405 188. 67,003 298. 85,301	— 3. 137 6. 379 10. 582 19. 1,098	— — 4. 1,346 5. 906 9. 2,252	— 2. 397 4. 789 9. 3,166 15. 4,352	5457 — 1,272 1,735 10. 5,191 20. 8,198	1507 — 6. 285 2. 179 2. 1,045 10. 1,509	— — 1. 99 20. 469 7. 623 20. 644 47. 1,736	— — 1. 81 — — 5. 773	15. 2,985 3. 561 120. 10,453 54. 15,475 249. 79,310 423. 105,238	410 68 1,012 1,287 5,084 7,383	7 8 10 12 15 14

* Six of the 14 Affiliated Colleges have classes in Law and 3 in Commerce.

TABLE II
RESULTS OF EXAMINATIONS

PROVINCE	MATRICULATION			INTERMEDIATE ARTS			INTERMEDIATE SCIENCE		
	NUMBER OF		PERCENTAGE OF PASSES	NUMBER OF		PERCENTAGE OF PASSES	NUMBER OF		PERCENTAGE OF PASSES
	CANDIDATES	PASSES		CANDIDATES	PASSES		CANDIDATES	PASSES	
Madras	77	20	26.0	5,542 ²	1,897 ²	34.2 ²	—	—	—
Andhra	25	7	28.0	2,461 ²	742 ²	30.1 ²	—	—	—
Annamalai	—	—	—	1,532	752	49.0 ²	—	—	—
Bombay	11,969 ¹	4,466 ¹	37.3 ¹	1,585	957	60.4	1,127	671	59.5
Calcutta	18,862	12,241	64.9	3,449	1,784	51.7	3,211	1,466	45.7
Dacca	—	—	—	—	—	—	—	—	—
Allahabad	—	—	—	—	—	—	—	—	—
Lucknow	—	—	—	—	—	—	—	—	—
Benares Hindu	1,633	537	32.9	244	125	51.2	251	112	44.6
Agra	—	—	—	—	—	—	—	—	—
Aligarh Muslim	203	113	55.7	142	71	50.0	91	38	41.8
Punjab	17,494	10,569	60.4	3,274	1,577	48.2	1,577	732	46.4
Delhi	—	—	—	451	240	53.2	174	87	50.0
Rangoon	—	—	—	486 ²	277 ²	44.6 ²	—	—	—
Patna	4,823	1,690	35.0	894	345	38.6	469	171	36.5
Nagpur	—	—	—	443	259	58.5	237	121	51.0
Mysore	—	—	—	434	123	28.3	877	202	23.0
Osmania (Hyderabad)	912	369	40.5	288 ²	160 ²	55.6 ²	—	—	—
Total	55,998	30,012	53.59	19,846	8,572	43.19	8,014	3,600	44.92

¹ The Bombay University does not hold a Matriculation Examination. A School Leaving Examination is held by a Special Board constituted jointly by the University and Government.

² Represents figures for both Arts and Science.

³ Includes figures for Intermediate Science.

TABLE II—continued

PROVINCE	BACHELOR OF ARTS (HONOURS)				BACHELOR OF ARTS (PASS)				BACHELOR OF SCIENCE (HONOURS)				BACHELOR OF SCIENCE (PASS)			
	NUMBER OF		PERCENT- AGE OF PASSES	PERCENT- AGE OF PASSES	NUMBER OF		PERCENT- AGE OF PASSES	PERCENT- AGE OF PASSES	NUMBER OF		PERCENT- AGE OF PASSES	PERCENT- AGE OF PASSES	NUMBER OF		PERCENT- AGE OF PASSES	PERCENT- AGE OF PASSES
	CANDI- DATES	PASSES			CANDI- DATES	PASSES			CANDI- DATES	PASSES			CANDI- DATES	PASSES		
Madras	254	225	88.6	40.1	3,246	1,302	40.1	—	—	—	—	—	84	38	—	45.2
Andhra	—	—	—	34.8	1,378	479	34.8	—	—	—	—	—	—	—	—	—
Annamalai	31	29	93.5	61.6	86	53	61.6	—	—	—	—	—	388	282	72.7	—
Bombay	405	350	86.4	54.2	709	384	54.2	—	—	—	—	—	563	328	58.3	—
Calcutta	488	388 ^a	79.5	53.7	2,287	1,229	53.7	—	—	—	—	—	64	25	39.1	—
Dacca	68	52 ^a	76.5	48.7	160	78	48.7	—	—	—	—	—	129	83	64.3	—
Allahabad	57	44	77.2	68.8	468	322	68.8	—	—	—	—	—	83	53	63.9	—
Lucknow	13	12	92.3	68.3	202	138	68.3	—	—	—	—	—	115	53	46.1	—
Benares Hindu	—	—	—	46.8	297	139	46.8	—	—	—	—	—	181	109	60.2	—
Agra	—	—	—	44.7	648	290	44.7	—	—	—	—	—	39	26	66.7	—
Aligarh Muslim	8	4	50.0	62.7	158	99	62.7	—	—	—	—	—	111	47	42.3	—
Punjab	156	85	54.4	40.0	225	89	40.0	—	—	—	—	—	43	26	60.4	—
Delhi	35	26 ^a	74.3	54.8	199	109	54.8	—	—	—	—	—	57	25	43.9	—
Rangoon	7	7	100.0	42.5	134	57	42.5	—	—	—	—	—	50	15	30.0	—
Patna	112	50	44.6	35.5	490	174	35.5	—	—	—	—	—	99	54	54.5	—
Nagpur	—	—	—	55.6	356	198	55.6	—	—	—	—	—	—	—	—	—
Mysore	46	45 ^a	97.8	181	181	64 ^a	45.7 ^a	—	—	—	—	—	—	—	—	—
Osmania (Hyderabad)	—	—	—	45.7 ^a	140 ^a	64 ^a	45.7 ^a	—	—	—	—	—	—	—	—	—
Total	1,680	1,317	78.39	46.93	13,183	6,187	46.93	72.76	268	195	72.76	59.73	2,106	1,258	59.73	—

^a Includes Candidates who appeared for the Honours Examinations but were awarded Pass Degrees.^b The number cannot be stated, as the candidates may at their option take the examination as a whole or appear by parts separately.^c Represents figures for both Arts and Science.

TABLE II—continued

PROVINCE	MASTER OF ARTS		MASTER OF SCIENCE		
	NUMBER OF		PERCENTAGE OF PASSES	NUMBER OF	
	CANDIDATES	PASSES		CANDIDATES	PASSES
Madras	176	111	63.1	7	7
Andhra	—	—	—	—	—
Annamalai	—	—	—	—	—
Bombay	115	76	66.1	34	28
Calcutta	389	254	65.3	163	90
Dacca	58	50	86.2	27	26
Allahabad	95	86	90.5	104 ¹	92
Lucknow	78	77	98.7	31	30
Benares Hindu	59	38	64.4	25	20
Agra	123	101	82.1	21	19
Aligarh Muslim	42	33	78.6	17	12
Punjab	295	162	54.9	45	37
Delhi	47	28	59.6	—	—
Rangoon	• 1	1	100.0	—	—
Patna	86	71	82.5	14	10
Nagpur	22	20	90.9	11	11
Mysore	48	33	68.7	2	2
Osmania (Hyderabad)	14	12	85.7	9	7
Total	1,648	1,153	69.96	510	391 ¹
					76.67

¹ Represents figures for both "final" and "previous" examinations.

